

Volume

#

R0291

BOOK A-291

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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, _____ and _____

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of _____

_____, Chainman.

_____, Chainman.

Subscribed and sworn to before me this _____
day of _____, 189 }



WE, _____ and _____

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of _____

_____, Moundman.

_____, Moundman.

Subscribed and sworn to before me this _____
day of _____, 189 }



WE, _____ and _____

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of _____

_____, Axman.

_____, Axman.

Subscribed and sworn to before me this _____
day of _____, 189 }



I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of _____

_____, Flagman.

Subscribed and sworn to before me this _____
day of _____, 189 }



BOOK A-291

INDEX DIAGRAM.

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_____, Chainman.

_____, Chainman.

Subscribed and sworn to before me this _____
day of _____, 1899 }



WE, _____ and
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of _____

_____, Moundman.

_____, Moundman.

Subscribed and sworn to before me this _____
day of _____, 1899 }



WE, _____ and
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of _____

_____, Axman.

_____, Axman.

Subscribed and sworn to before me this _____
day of _____, 1899 }



I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of _____

_____, Flagman.

Subscribed and sworn to before me this _____
day of _____, 1899 }



INDEX DIAGRAM.

Township		17 S.		Range		19 E.	
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....., Moundman.

Subscribed and sworn to before me this }
day of , 189 }



We, and
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., Axman.

....., Axman.

Subscribed and sworn to before me this }
day of , 189 }



I, , do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., Flagman.

Subscribed and sworn to before me this }
day of , 189 }



INDEX DIAGRAM.

Township 16 S., Range 20 E.

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Subscribed and sworn to before me this }
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WE, and

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day of , 189 }



INDEX DIAGRAM.

Township 16 S., Range 19 E.

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_____, Flagman.

Subscribed and sworn to before me this _____ }
day of _____, 189 }



H.

BOOK A-291

FIELD NOTES

X.8.13

OF THE SURVEY OF THE

SOUTH, WEST, AND NORTH BOUNDARIES

of

Township No. 18 South, Range No. 18 E.

Of the SALT LAKE BASE AND Meridian,

in the STATE OF UTAH

AS SURVEYED BY

Andrew J. Stewart Jr., United States Deputy Surveyor,

Under his Contract No. 243, dated April 12, 1901, 189x

Survey commenced July 31, 1901, 189x

Survey completed August 5, 1901, 189x

6-151

South	High	5,7862'
West	"	6.00.00'
North	"	5,79-60'
		<u>17.7842'</u>

NAMES AND DUTIES OF ASSISTANTS.

William Matson Chainman
Harvey M. Cluff Chainman
William E Andrews Moundman
Arthur Wilde Moundman
Omero Marriotti Axman
Victor D. Cram Flagman

For preliminary affidavits see book C of 195 Res E

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BOOK A-291

INDEX DIAGRAM.

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South boundary of T.18 S., R.19 E.-

Survey commenced July 31, 1901, and executed with a W. and L.E. Gurley light mountain transit, No. 1, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the lat. and declination arcs. The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, May 29, 1901. I examine the adjustments of the instrument, and correct the level and collimation errors, then, to test the solar apparatus by comparing its indications resulting from solar observations made during p.m. and a.m. hours with a true meridian established by observation on Polaris; I proceed as follows:

At the cor. of Tps. 18 and 19 S., Rs. 19 and 20 E., here-tofore described, latitude $39^{\circ}12'N.$, longitude $109^{\circ}48'W.$, I set off $39^{\circ}12'N.$, on the lat. arc; $18^{\circ}18'N.$, on the decl. arc; and determine a true meridian with the solar at 3 h 2 m p.m., l.m.t., and mark a point thereof on a stone firmly set in the ground, 5.00 chs. N. of the cor.

At 10 h 50 m p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark a point in the line thus determined, on a wooden plug driven in the ground, 5.00 chs. N. of the cor.

July 31, 1901.

August 1, 1901: At 6 h 30 m a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ}34.5'$ to the west, and mark a point in the true meridian thus determined, by cutting a small groove in the stone, already set 5.00 chs. N. of the cor.; on which the true meridian falls 0.28 ins. east of the true meridian established by Polaris observation.

South boundary of T.18 S., R.19 E.-Continued.

Chains	At 7 h 2 m a.m., l.m.t., I set off $39^{\circ}12'N.$, on the lat. arc; $18^{\circ}8'N.$, on the decl. arc; and mark a point in the true meridian determined with the solar, by a cross on the stone already set 5.00 chs. N. of the cor.; this mark falls 0.35 ins. east of the true meridian established by Polaris observation. The solar apparatus by p.m. and a.m. observations, defines positions for true meridians, respectively about $0'15''$ west and $0'18''$ east of the true meridian established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory. The magnetic bearing of the true meridian, at 7 h 6 m a.m., is $15^{\circ}50.6'W.$, the angle thus determined reduced by the table page 100 of the Manual, gives the mean mag. decl. $15^{\circ}45'E.$
	From the above described Tp.cor. I run West, on a true line along S.bdy.of T.18 S., R.19 E., bet. secs. 1 and 36. Over mountainous land; through scattering timber and scattering undergrowth; descend .
1.00	Bottom of Pioche Canon, 10 ft. below Tp.cor., course N.; ascend .
11.00	Trail to Thompsons, bears N. 10° W. and S. 10° E.
27.00	Top of ridge, 200 ft. above canon , bears N. and S.; descend .
40.00	Set a sandstone, 20x14x6 ins., 16 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N. face; from which A pine, 9 ins. diam., bears N. 10° E., 20 lks. dist., marked $\frac{1}{4}$ S. 36, B.T. A pine, 24 ins. diam., bears S. 10° E., 20 lks. dist., marked $\frac{1}{4}$ S. 1, B.T.
57.50	Bottom of hollow, 100 ft. below ridge, course N. 4° E.; ascend .
66.00	Top of ridge, 150 ft. above hollow, bears N. 10° E. and

South boundary of T.18 S., R.19 E.-Continued.

Chains	S.10° W.; descend .
75.00	Bottom of hollow, 200 ft. below ridge, course N.40° E.; ascend .
80.00	Set a sandstone, 16x10x5 ins., 11 ins. in the ground, for cor. of secs. 1, 2, 35, and 36, marked with 1 notch on E. and 5 notches on W. edges; from which An aspen, 10 ins. diam., bears N.85° E., 85 lks. dist., marked T.18 S., R.19 E., S.36, B.T. An aspen, 10 ins. diam., bears S.15° E., 97 lks. dist., marked T.19 S., R.19 E., S.1, B.T. An aspen, 9 ins. diam., bears S.65° W., 97 lks. dist., marked T.19 S., R.19 E., S.2, B.T. An aspen, 9 ins. diam., bears N.15° W., 60 lks. dist., marked T.18 S., R.19 E., S.35, B.T. Land, mountainous. Soil, sandy loam and gravelly ; 2nd and 3rd rate. Timber, aspen and pine . Undergrowth, oak and aspen saplings. Good grass for grazing. Mountainous land, 80.00 chs.
	West, on true line bet. secs. 2 and 35. Over mountainous land; through dense undergrowth and scattering timber; ascend .
-4.50	Top of divide ridge, 200 ft. above sec. cor., bears N. and S.; descend .
24.75	Bottom of hollow, 200 ft. below ridge, course N.30° W.; ascend .
31.50	Top of ridge, 300 ft. above hollow, bears N.30° W. and S. 30° E.; descend .
40.00	Set a sandstone, 18x12x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
80.00	Set a sandstone, 28x14x4 ins., 21 ins. in the ground, for

South boundary of T.18 S., R.19 E.-Continued.

Chains	<p>cor.of secs.2,3,34, and 35,marked with 2 notches on E.and 4 notches on W.edges;from which</p> <p>A pine,18 ins.diam.,bears N.77° W.,150 lks. dist.,marked T.18 S.,T.19 E.,S.34,B.T.</p> <p>No other trees within limits ;raise a mound of stone,2 ft.base,$1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.</p> <p>Land,mountainous.</p> <p>Soil,sandy and gravelly loam;2nd and 3rd rate.</p> <p>Timber,pine and aspen.</p> <p>Undergrowth,oak and sage .</p> <p>Good grass for grazing.</p> <p>Mountainous land,or land covered with dense undergrowth,80.00 chs.</p> <hr/> <p>West,on a true line betsecs.3 and 34.</p> <p>Over mountainous land,through dense undergrowth and scattering timber ;descend .</p>
6.00	Bottom of hollow,100 ft.below sec.cor.,course N. 40° W.;ascend .
23.00	Top of ridge,200 ft.above hollow,bears N. 40° W. and S. 40° E.;descend .
40.00	Set a sandstone,18x9x7 ins.,12 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on N.face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,N.of cor.Pits impracticable.
42.25	Bottom of hollow,300 ft.below ridge,course N. 50° W.;creek,2 lks.wide,1 in.deep in bottom. Ascend .
56.00	Top of ridge,300 ft. above hollow,bears N. 25° W. and S. 25° E.;descend .
70.00	Bottom of hollow,400 ft.below ridge,course N. 67° W.;ascend .
80.00	Set a sandstone,18x6x6 ins.,12 ins.in the ground,for cor.of secs.3,4,33, and 34,marked with 3 notches on E.and 3 notches on W.edges;and raise a mound of

South boundary of T. 18 S., R. 19 E. -Continued.

- Chains stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- Land, mountainous.
- Soil, sandy loam and rocky; 2nd and 4th rate.
- Timber, cedar, pine, and aspen.
- Undergrowth, sage brush, oak and deer brush.
- Good grass for grazing.
- Mountainous land, or land covered with dense undergrowth, 80.00 chs.
- August 1, 1901: At this cor. I set off $18^{\circ} 4' N.$, on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ} 12' N.$
-
- West, on a true line bet. secs. 4 and 33.
- Over mountainous land, through dense undergrowth and scattering timber; ascend.
- 40.00 Set a sandstone, $18 \times 9 \times 9$ ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 45.50 Top of ridge, 500 ft. above sec. cor., and 100 ft. above $\frac{1}{4}$ sec. cor., bears N. $25^{\circ} W.$ and S. $25^{\circ} E.$; descend.
- 71.50 Bottom of hollow, 300 ft. below ridge, course N. $10^{\circ} E.$; ascend.
- 80.00 Set a sandstone, $20 \times 10 \times 10$ ins., 15 ins. in the ground, for cor. of secs. 4, 5, 32, and 33, marked with 4 notches on E. and 2 notches on W. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- Land, mountainous.
- Soil, sandy loam and rocky; 2nd and 4th rate.
- Timber, cedar, pinion pine, and aspen.
- Undergrowth, sage and oak brush.
- Good grass for grazing.
- Mountainous land, or land covered with dense under-

South boundary of T. 18 S., R. 19 E.-Continued.

Chains	growth, 80.00 chs.
	West, on a true line bet. secs. 5 and 32.
	Over mountainous land; through scattering timber and scattering undergrowth, ascend abruptly.
50.50	Top of ridge, 500 ft. above sec. cor., bears N. 20° W. and S. 20° E.; descend.
40.00	Set a sandstone, 20x8x8 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
60.25	Bottom of hollow, 300 ft. below ridge, course N. 15° W.; ascend gradually along hill side.
80.00	Set a sandstone, 18x15x4 ins., 12 ins. in the ground, for cor. of secs. 5, 6, 31, and 32, marked with 5 notches on E. and 1 notch on W. edges; from which A pine, 4 ins. diam., bears N. 26° E., 15 lks. dist., marked T. 18 S., R. 19 E., S. 32, B.T. A cedar, 4 ins. diam., bears S. 70° E., 20 lks. dist., marked T. 18 S., R. 19 E., S. 5, B.T. No other trees within limits; raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy and gravelly and rocky; 3rd and 4th rate. Timber, cedar, pinion pine, and white pine. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, 80.00 chs.

August 1, 1901.

August 2, 1901: At 7 h 0 m a.m., 1 m.t.; I set off 39° 12' N., on the lat. arc; 17° 53' N., on the decl. arc; and determine a true meridian, with the solar, at the cor. of secs. 5, 6, 31, and 32.

South boundary of T.18 S., R.19 E.-Concluded.

Chains	Thence I run West, on a true line bet. secs. 6 and 31. Over mountainous land; through scattering timber and scattering undergrowth; descend .
40.00	Set a sandstone, 20x8x5 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor.Pits impractic- able.
70.00	Bottom of canon, 200 ft. below $\frac{1}{2}$ sec.cor., course S. 70° W.; ascend .
78.82	Set a sandstone, 18x14x5 ins., 12 ins. in the ground, .for cor.of Tps.18 and 19 S.,Rs.18 and 19 E.,marked 18 S.on N.E.,19 E.on S.E.,19 S.on S.W.,and 18 E.on N.W.faces;with, 6 notches on each edge;from which. A cedar, 10. ins.diam.,bears N.20° E.,96 lks. dist.,marked T.18 S.,R.19 E.,S.31,B.T. A pine, 4 ins.diam.,bears S.70° E.,16 lks. dist.,marked T.19 S.,R.19 E.,S.6,B.T. A pine, 4 ins.diam.,bears N.26° W.,20 lks. dist.,marked T.18 S.,R.18 E.,S.36,B.T. No other trees:Within limits;raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft. high,S.of cor.Pits impracticable. Land,mountainous. Soil,sandy and gravelly and rocky;3rd and 4th rate. Timber,pine and cedar. Undergrowth,sage and oak brush. Good grass for grazing. Mountainous land,78.82 chs.

West. boundary of T.18 S., R.19 E.-

From the cor.of Tps.18 and 19 S.,Rs.18 and 19 E.,
heretofore described,
I run
North,bet.secs.31 and 36.

West boundary of T.18 S., R.19 E.-Continued.

Chains	Over mountainous land; through scattering timber and scattering undergrowth; ascend abruptly over broken ground.
32.75	Top of ridge, 600 ft. above Tp.cor., bears N.50°W. and S.20°E.; descend abruptly.
40.00	Set a sandstone, 16x10x8 ins., 11 ins. in the ground, for sec.cor., marked $\frac{1}{4}$ on W. face; from which A cedar, 5 ins. diam., bears S.40°W., 60 lks. dist., marked $\frac{1}{4}$ S.36, B.T.
	No other trees within limits; raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
66.50	Bottom of hollow, 300 ft. below ridge, course S.65°E.; ascend.
80.00	Set a sandstone, 16x12x11 ins., 11 ins. in the ground, for cor. of secs. 25, 30, 31, and 36, marked with 1 notch on S. and 5 notches on N. edges; from which A pine, 6 ins. diam., bears N.40°E., 32 lks. dist., marked T.18 S., R.18 E., S.30, B.T. A pinion pine, 8 ins. diam., bears S.52°E., 16 lks. dist., marked T.18 S., R.19 E., S.31, B.T. A pinion pine, 10 ins. diam., bears S.50°W., 48 lks. dist., marked T.18 S., R.18 E., S.36, B.T. A pinion pine, 10 ins. diam., bears N.50°W., 48 lks. dist., marked T.18 S., R.18 E., S.25, B.T.
	Land, mountainous.
	Soil, gravelly and rocky; 3rd and 4th rate.
	Timber, cedar, pinion pine, and white pine.
	Undergrowth, sage and oak brush.
	Good grass for grazing.
	Mountainous land, 80.00 chs.
	August 2, 1901 At this cor. I set off $17^{\circ}49'N.$, on the decl. arc; and at 0 h 5 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ}13'N.$

North, bet. secs. 25 and 30.

West boundary of T.18 S., R.19 E.-Continued.

Chains	Over mountainous land; through scattering timber and scattering undergrowth; ascend abruptly.
2.50	Top of ridge, 75 ft. above sec.cor., bears N.75° E. and S.75° W.; descend abruptly.
40.00	Set a sandstone, 20x20x8 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
54.00	Bottom of hollow, 500 ft. below ridge, course S.80° W.; ascend .
80.00	Set a sandstone, 18x9x9 ins., 12 ins. in the ground, for cor.of secs. 19, 24, 25, and 30, marked with 4 notches on N. and 2 notches on S.edges; and raise : a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, cedar and pinion pine. Undergrowth, sage brush and oak. Good grass for grazing. Mountainous land; 80.00 chs.
<hr/>	
	North, bet. secs. 19 and 24.
	Over mountainous land; through scattering timber; ascend .
10.00	Enter scattering undergrowth, bears E. and W.
21.00	Top of ridge, 700 ft. above sec.cor., bears E. and W.; descend .
40.00	Set a sandstone, 18x14x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. bas., $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
59.10	Bottom of hollow, 800 ft. below ridge, course S.40° W.; ascend .
80.00	Set a sandstone, 20x10x5 ins., 15 ins. in the ground,

West boundary of T. 18 S., R. 19 E. -Continued.

	Chains for cor. of secs. 13, 18, 19, and 24, marked with 3 notches on N. and 3 notches on S. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, gravelly and rocky; 3rd and 4th rate.
	Timber, cedar and pinion pine.
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	Mountainous land, 80.00 chs.
<hr/>	
	North, bet. secs. 13 and 18.
	Over mountainous land, through scattering timber and scattering undergrowth; ascend.
16.50	Top of ridge, 600 ft. above sec. cor., bears N. 50° E. and S. 50° W.; descend.
40.00	Set a sandstone, 16x9x7 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
48.00	Bottom of hollow, 800 ft. below ridge, course S. 60° W.; ascend.
80.00	Set a sandstone, 16x10x5 ins. 11 ins. in the ground, for cor. of secs. 7, 12, 13, and 18, marked with 2 notches on N. and 4 notches on S. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, gravelly and rocky; 3rd and 4th rate.
	Timber, cedar and pinion pine.
	Undergrowth, sage brush and oak.
	Good grass for grazing.
	Mountainous land, 80.00 chs.

August 2, 1901.

West boundary of T.18 S., R.19 E.-Continued.

Chains	August 3, 1901: At 7 h 3 m a.m., l.m.t., I set off $39^{\circ} 16'$ N., on the lat. arc; $17^{\circ} 38' N.$, on the decl. arc; and determine a true meridian, with the solar, at the cor. of secs. 7, 12, 13, and 18. Thence I run North, bet. secs. 7 and 12. Over mountainous land; through dense undergrowth and scattering timber; ascend . .
20.00	Top of ridge, 300 ft. above sec. cor., bears N. 70° E. and S. 70° W.; descend .
40.00	Set a sandstone, 18x9x9 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
80.00	Set a sandstone, 20x10x6 ins., 15 ins. in the ground, for cor. of secs. 1, 6, 7, and 12, marked with 1 notch on N. and 5 notches on S. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy loam and gravelly; 2nd and 3rd rate. Timber, cedar and pinion pine. Undergrowth, sage brush and oak. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 shs.
25.50	North, bet. secs. 1 and 6. Over mountainous land; through dense undergrowth and scattering timber; descend .
40.00	Bottom of hollow, 500 ft. below ridge, course N. 80° W.; ascend .
	Set a sandstone, 18x8x8 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

West boundary of T.18 S., R.19 E.-Concluded.

Chains	
80.00	Set a sandstone, 22x15x7 ins., 16 ins. in the ground, for cor. of Tps. 17 and 18 S., Rs. 18 and 19 E., marked 17 S. on N.E., 19 E. on S.E., 18 S. on S.W., and 18 E. on N.W. faces; with 6 notches on each edge; and raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor. Pits impracticable.
	Land, mountainous.
	Soil, sandy and gravelly; 3rd rate.
	Timber, cedar and piñon pine.
	Undergrowth, sage and oak brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	August 3, 1901: At the noon hour the sky is overcast and solar observations are impossible.

From the cor. of Tps. 17 and 18 S., Rs. 18 and 19 E., heretofore described,

I run

East, on a random line along north bdy. of T. 18 S., R. 19 E., setting temp. & sec. and sec. cors. at intervals of 40.00 chs., and at 479.60 chs. intersect East bdy. of Tp. at the cor. of Tps. 17 and 18 S., Rs. 19 and 20 E., heretofore described.

August 3, 1901.

August 5, 1901: At 7 h 2 m a.m., l.m.t., I set off $39^{\circ} 17' N.$, on the lat. arc; $17^{\circ} 6' N.$, on the decl. arc; and determine a true meridian, with the solar, at the cor. of Tps. 17 and 18 S., Rs. 19 and 20 E.,

Thence I run

West, on a true line bet. secs. 1 and 36.

North boundary of T.18 S., R.19 E.-Continued.

	Chains	Over mountainous land; through dense undergrowth; descend.
40.00		Set a sandstone, 24x14x10 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
65.50		Foot of descent, 800 ft. below sec.cor. and 300 ft. below $\frac{1}{4}$ sec.cor., bears N. and S.; enter bottom of Hill Creek Canon.
66.45		Trail in canon, bears N. and S..
67.50		Hill Creek, 10 lks. wide, 3 ins. deep, rapid current, Gravelly bottom, course N.
68.25		Leave canon bottom, bears N. and S.; ascend.
80.00		Set a sandstone, 18x10x5 ins., 12 ins. in the ground, for cor.of secs. 1, 2, 35, and 36, marked with 1 notch on E. and 5 notches on W.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
		Land, mountainous.
		Soil, sandy loam and gravelly; 2nd and 3rd rate.
		No timber.
		Undergrowth, sage, oak and deer brush.
		Good grass for grazing.
		Mountainous land, or land covered with dense undergrowth, 80.00 chs..
<hr/>		
		West, on a true line betsecs. 2 and 35.
		Over mountainous land, through dense undergrowth; ascend.
40.00		Set a sandstone, 20x12x8 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
43.10		Top of ridge, 300 ft. above sec.cor., and 75 ft. above $\frac{1}{4}$ sec.cor., bears N. and S.; descend.

North boundary of T.18 S., R.19 E.-Continued.

Chains	
44.00	Enter scattering timber,bears N.and S.
80.00	Set a sandstone,22x12x7 ins.,16 ins.in the ground,for cor.of secs.2,3,34, and 35,marked with 2 notches on E.and 4 notches on W.edges;from which A pine,8 ins.diam.,bears N. 40° E.,18 lks. dist.,marked T.18 S.,R.19 E.,S.35,B.T. An aspen,10.ins.diam.,bears S. 30° E.,20 lks. dist.,marked T.18 S.,R.19 E.,S.2,B.T. A pine,8 ins.diam.,bears S. 45° W.,25 lks. dist.,marked T.18 S.,R.19 E.,S.3,B.T. An aspen,10.ins.diam.,bears N. 55° W.,30 lks. dist.,marked T.17 S.,R.19 E.,S.34,B.T.
	Land, mountainous. Soil, sandy loam and gravelly;2nd and 3rd rate. Timber,pine and aspen. Undergrowth,oak,sage ,and deer brush. Good grass for grazing. Mountainous land,or land covered with dense under-growth,80.00 chs.
	West, on a true line betsecs.3 and 34 . Over mountainous land;through dense undergrowth and scattering timber ;descend ..
0.10	Creek,2 lks.wide,3 ins.deep,in hollow,course N. 25° W.; ascend .
22.17	Top of ridge,200.ft.above hollow,bears N.and S.;descend .
40.00	Set a sandstone,18x12x6 ins.,12 ins.in the ground,for $\frac{1}{2}$ sec.cor.,marked $\frac{1}{2}$ on N.face;from which A pine,12 ins.diam.,bears N. 10° E.,25 lks. dist.,marked $\frac{1}{2}$.S.34,B.T. A pine,12 ins.diam.,bears S.,15 lks.dist., marked $\frac{1}{2}$ S.3,B.T.
41.00	Leave timber,bears N.and S.

North boundary of T.18 S., R.19 E.-Continued.

Chains	
43.50	Foot of descent, 300 ft. below ridge, bears N.10° E. and S.10° W.; enter bottom of West Fork of Hill Creek Canon,
44.20	Creek, 10 lks. wide, 4 ins. deep, in canon, course N.10° E.
45.00	Leave canon bottom, bears N.10° E. and S.10° W.; ascend .
46.00	Enter scattering timber, bears N. and S.
70.00	Top of ridge, 250 ft. above canon, bears N.20° E. and S. 20° W.; descend .
80.00	Set a sandstone, 18x12x8 ins., 12 ins. in the ground, for cor. of secs. 3, 4, 33, and 34, marked with 3 notches on E, and 3 notches on W.edges; from which An aspen, 6 ins. diam., bears N.60° E., 75 lks. dist., marked T.17 S., R.19 E., S.34, B.T. An aspen, 6 ins. diam., bears S.55° E., 80 lks. dist., marked T.18 S., R.19 E., S.3, B.T. An aspen, 8 ins. diam., bears S.40° W., 65 lks. dist., marked T.18 S., R.19 E., S.4, B.T. A sandstone, boulder, 12 ft. base, 10 ft. high, bears N.45° W., 175 lks. dist., marked + B.O. Land, mountainous.
	Soil, sandy and gravelly loam; 2nd rate.
	Timber, pine and aspen.
	Undergrowth, oak and deer brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense under-growth, 60.00 chs.
	August 5, 1801; At the noon hour the sky is overcast and solar observations are impossible.
	West, on a true line bet. secs. 4 and 33.
	Over mountainous land; through dense undergrowth and scattering timber; descend .
2.20	Bottom of hollow, 25 ft. below sec.cor., course N.40° E.; ascend .

North boundary of T.18 S., R.19 E.-Continued.

Chains	
40.00	Set a sandstone, 22x12x8 ins., 16 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; from which A pine, 12 ins. diam., bears N.10° E., 25 lks. dist., marked $\frac{1}{4}$ S.33,B.T. A pine, 18 ins. diam., bears S.12° E., 19 lks. dist., marked $\frac{1}{4}$ S.4,B.T.
70.00	Top of ridge, 400 ft. above hollow, bears N.20° E. and S.20° W.; descend .
80.00	Set a sandstone, 16x8x8 ins., 11 ins. in the ground, for cor.of secs.4,5,32, and 33, marked with 4 notches on E. and 2 notches on W.edges; from which An aspen, 6 ins. diam., bears N.82° E., 105 lks. dist., marked T.17 S.,R.19 E.,S.33,B.T. An aspen, 8 ins. diam., bears S.55° E., 30 lks. dist., marked T.18 S.,R.19 E.,S.4,B.T. An aspen, 7 ins. diam., bears S.45° W., 45 lks. dist., marked T.18 S.,R.19 E.,S.5,B.T. An aspen, 8 ins. diam., bears N.75° W., 100 lks. dist., marked T.17 S.,R.19 E.,S.32,B.T.
	Land, mountainous. Soil, sandy and gravelly loam; 2nd and 3rd rate. Timber, cedar, pine and aspen. Undergrowth, oak and deer brush. Good grass for grazing. Mountainous land, or land covered with dense under- growth, 80.00 chs.
	West, on a true line bet.secs.5 and 32. Over mountainous land; through heavy timber and scat- tering undergrowth; descend .
2.00	Bottom of hollow, 25 ft. below sec.cor., course N.10° W.; ascend .
9.00	Top of ridge, 200 ft. above hollow, bears N.20° E. and S. 20° W.; descend .

Su P. 32.

North boundary of T.18 S., R.19 E.-Concluded.

Chains tering undergrowth; descend .
 5.00 Bottom of hollow, 60 ft. below sec.cor., course N.25° E.; ascend .
 20.00 Top of ridge, 100 ft. above hollow, bears N. and S.; descend .
 22.50 Leave heavy timber and enter scattering timber, bears N. and S.:
 40.00 Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for sec.cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
 79.60 The cor.of Tps.17 and 18 S., Rs.18 and 19 E.
 Land, mountainous.
 Soil, sandy loam and rocky; 2nd and 4th rate.
 Timber, pine and aspen.
 Undergrowth, sage, oak and deer brush.
 Good grass for grazing.
 Mountainous or heavily timbered land, 79.60 chs.

August 5, 1901.

Boundaries of T.18 S., R.19 E.

Latitudes, departures, and closing errors.

Line designated	True bearing	dist- ance chs.	Latitudes	Departures	
		N. chs.	S. chs.	E. chs.	W. chs.
W.bdy.T.18 S., R.19 E.	North	480.00	480.00		
N.bdy.T.18 S., R.19 E.	East	479.60		479.60	
E.bdy.T.18 S., R.19 E.	South	480.00	480.00		
S.bdy.T.18 S., R.19 E.	West	478.82			478.82
Convergency				59	
Error in Dep.		480.00	480.00	480.19	478.82
				476.82	
				/.37	

This township is all mountainous, but contains several good streams of water and an abundance of rich and nutritious grasses and is well adapted for grazing. It should be subdivided.

August 5, 1901.

Andrew J. Stewart Jr.
U.S. Deputy Surveyor.

North boundary of T 18 S R 18 E -Continued

Chains

55.00 Bottom of hollow, 200 ft. below ridge, course N.10°E.;

ascend .

40.00 Set a sandstone, 24x16x10 ins., 16 ins. in the ground, for
sec.cor., marked $\frac{1}{2}$ on N.face; from which

An aspen, 9 ins. diam., bears N.85°W., 6 lks.

dist., marked $\frac{1}{2}$ S.32,B.T. .

An aspen, 7 ins. diam., bears S., 45 lks. dist.,
marked $\frac{1}{2}$ S.5,B.T.

65.00 Top of ridge, 200 ft. above hollow, bears N. and S.; des-
cend .

74.50 Bottom of hollow, 200 ft. below ridge, course N.20°W.;
ascend .

79.50 Top. of ridge, 60 ft. above hollow, bears N.20°W. and S.
20°E.; decend .

80.00 Set a sandstone, 20x12x8 ins., 15 ins. in the ground, for
cor.of secs.5,6,31, and 32, marked with 5 notches on
S. and 1 notch on W.edges; from which

An aspen, 7 ins. diam., bears N.55°E., 50 lks.
dist., marked T.17 S.,R.19 E.,S.32,B.T.

An aspen, 8 ins. diam., bears S.35°E., 65 lks.
dist., marked T.18 S.,R.19 E.,S.5,B.T.

An aspen, 8 ins. diam., bears S.40°W., 45 lks.
dist., marked T.18 S.,R.19 E.-C.6,B.T.

An aspen, 8 ins. diam., bears N.45°W., 65 lks.
dist., marked T.17 S.,R.19 E.,S.31,B.T.

Land, mountainous .

Soil, sandy loam and gravelly; 2nd and 3rd rate.

Timber, pine and aspen.

Undergrowth, oak and deer brush.

Good grass for grazing.

Mountainous or heavily timbered land, 80.00 chs.

West, on a true line bet.secs.6 and 31.

Over mountainous land; through heavy timber and scat-

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of _____

showing the respective capacities in which they acted:

J.W. Franklin, Chainman.

J.W. Franklin, Chainman.

J.W. Franklin, Moundman.

J.W. Franklin, Moundman.

J.W. Franklin, Axman.

J.W. Franklin, Axman.

J.W. Franklin, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____

United States Deputy Surveyor, in surveying all those parts or portions of the _____

meridian, _____ of the _____, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for _____

J.W. Franklin, Chainman.

J.W. Franklin, Chainman.

J.W. Franklin, Moundman.

J.W. Franklin, Moundman.

J.W. Franklin, Axman.

J.W. Franklin, Axman.

J.W. Franklin, Flagman.

Subscribed and sworn to before me this _____

day of _____, 189 _____



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from United States Surveyor General for bearing date of the day of 189 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of R. J. K. of the meridian, in the of which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

[Signature] *J. W. S.* United States Deputy Surveyor.

Subscribed by said and sworn to before me }
this day of 189 }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

W. L. S. P. March 19, 1903

The foregoing field notes of the survey of *The South West and North Boundaries of Township 18 North Range 19 East of the Salt Lake Base Line, Grand Jury, Salt Lake*,
executed by *Archibald Stewart Jr.*
under his contract No. 243, dated *April 12, 1901*, 189 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward H. Pease

United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in has been correctly copied from the original notes on file in this office.

United States Surveyor General.

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FIELD NOTES

St. S. B.

OF THE SURVEY OF THE

SUBDIVISION

of

Township No. 18. South, Range No. 19. East

Of the SALT LAKE BASE AND Meridian,

in the STATE OF UTAH

AS SURVEYED BY

Andrew J. Stewart Jr., United States Deputy Surveyor

Under his Contract No. 243, dated April 12, 1901. #89

Survey commenced August 9, 1901. #89

Survey completed August 19, 1901. #89

6-101

Siegler 59-74-62

NAMES AND DUTIES OF ASSISTANTS.

William Matson.....	Chainman.....
Harvey M. Cluff.....	Chainman.....
William Andrews.....	Moundman.....
Arthur Wilde.....	Moundman.....
Omero Marriotti.....	Axman.....
Victor D. Cram.....	Flagman.....

In preliminary affidavits see book "D" pgs 195 & 202

INDEX DIAGRAM.

Township _____, *Range* _____

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Meanders Page _____

40
PRELIMINARY OATHS OF ASSISTANTS.

WE, and do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., Chainman.

....., Chainman.

Subscribed and sworn to before me this }
day of , 189 }
 {



WE, and do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., Moundman.

....., Moundman.

Subscribed and sworn to before me this }
day of , 189 }
 {



WE, and do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., Axman.

....., Axman.

Subscribed and sworn to before me this }
day of , 189 }
 {



I, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., Flagman.

Subscribed and sworn to before me this }
day of , 189 }
 {



Subdivision of T.18 S., R.19 E.

Survey commenced August 6, 1901, and executed with a W. and L.E. Gurley light mountain transit, No. 1, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct and was approved by the surveyor general for Utah, on May 29, 1901.

I examine the adjustments of the instrument, and correct the level and collimation errors, then, to test the solar apparatus, by comparing its indications resulting from solar observations made during p.m. and a.m. hours, with a true meridian established by observation on Polaris, I proceed as follows:

At the cor. of secs. 1, 2, 35, and 36, on S. bdy. of Tp., heretofore described, latitude $39^{\circ} 12' N.$, longitude, $109^{\circ} 49' W.$, I set off $39^{\circ} 12' N.$, on the lat. arc; $16^{\circ} 44' N.$, on the decl. arc; and at 3 h 2 m p.m., l.m.t., determine a true meridian with the solar, and mark a point thereof on a stone, firmly set in the ground, 5.00 chs. N. of the cor.

At 10 h 27 m p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark a point in the line thus determined, on a wooden plug driven in the ground, 5.00 chs. N. of the cor.

August 6, 1901.

August 7, 1901: At 6 h 30 m a.m., l.m.t. I lay off the azimuth of Polaris, $1^{\circ} 34', 4''$ to the west, and mark the true meridian thus determined, by cutting a small groove in the stone already set 5.00 chs. N. of my station; on which the true meridian falls 0.43 ins. east of the true meridian established by the solar. At 7 h 3 m a.m., l.m.t., I set off $39^{\circ} 12' N.$, on the lat.

Subdivision of T.18 S., R.19 E.-Continued.

Chains arc; $16^{\circ} 33' N.$, on the decl. arc; and mark a point in the true meridian determined with the solar, by a cross on the stone already set 5.00 chs. N. of the cor.; this mark falls 0.36 ins. east of the true meridian established by Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for true meridians, respectively about $0' 21''$ west and $0' 18''$ east of the true meridian established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 7 h 30 m a.m., is $15^{\circ} 50.6' W.$, the angle thus determined reduced by the table page 100 of the Manual, gives the mean mag. decl. $15^{\circ} 45' E.$.

From the above described cor.

I run

N. $0^{\circ} 01' W.$, bet. secs. 35 and 36.

Over mountainous land; through scattering aspen saplings and scattering timber; ascend.

21.80 Top of divide ridge, 200 ft. above sec. cor., bears N. $10^{\circ} E.$ and S. $10^{\circ} W.$; pole fence, bears N. $.80^{\circ} W.$ and S. $.80^{\circ} E.$; descend.

35.00 Bottom of hollow, 200 ft. below ridge, course W.; ascend.

40.00 Set a sandstone, 16x10x5 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; from which

An aspen, 4 ins. diam., bears N. $.6^{\circ} E.$, 100 lks. dist., marked $\frac{1}{2}$ S. 36, B.T.

An aspen, 4 ins. diam., bears N. $.45^{\circ} W.$, 75 lks. dist., marked $\frac{1}{2}$ S. 35, B.T.

44.00 Top of divide ridge between Hill Creek Canon and canon on south, 300 ft. above hollow, bears N. $.80^{\circ} W.$ and S. $.80^{\circ} E.$; descend.

50.00 Set a sandstone, 24x12x6 ins., 18 ins. in the ground, for

Subdivision of T.18 S., R.19 E.-Continued.

Chains cor.of secs.25,26,35, and 36,marked with 1 notch on S.and 1 notch on E.edges;from which

- An aspen,6 ins.diam.,bears N.40°E.,40 lks.
dist.,marked T.18 S.,R.19 E.,S.25,B.T.
- An aspen,6 ins.diam.,bears S.8°E.,100 lks.
dist.,marked T.18 S.,R.19 E.,S.35,B.T.
- An aspen,6 ins.diam.,bears S.67°W.,150 lks.
dist.,marked T.18 S.,R.19 E.,S.35,B.T.
- An aspen,5 ins.diam.,bears N.64°W.,46 lks.
dist.,marked T.18 S.,R.19 E.,S.26,B.T.

Land,mountainous.

Soil,sandy and gravelly loam;2nd rate.

Timber,pine and aspen.

Undergrowth,oak,sage and deer brush.

Good grass for grazing.

Mountainous land,80.00 chs.

-
- East, on a random line bet.secs.25 and 36.
- 40.00 Set temp. $\frac{1}{4}$ sec.cor.
- 79.94 Intersect E.bdy.of Tp.,14 lks.S.of the cor.of secs.
25,30,31, and 36,heretofore described.
Thence I run
S.89° 54'W.,on a true line bet.secs.25 and 36.
Over mountainous land;through heavy timber and dense
undergrowth;ascend .
- 5.00 Top of ridge,100 ft.above sec.cor.,bears N.20°E.and
S.20°W.;descend .
- 18.00 Bottom of hollow,250 ft.below ridge,course N.20°E.;
leave heavy timber and enter scattering timber ,bears
with hollow ;ascend .
- 39.97 Set a sandstone,18x12x6 ins.,12 ins.in the ground,for
 $\frac{1}{4}$ sec.cor.,marked $\frac{1}{2}$ on N.face;from which
- An aspen,6 ins.diam.,bears N.30°E.,43 lks.
dist.,marked $\frac{1}{2}$ S.25,B.T.
 - An aspen,6 ins.diam.,bears S.36°W.,85 lks.

Subdivision of T.18 S., R.19 E.-Continued.

Chains	dist., marked $\frac{1}{4}$ S.36, B.T. .
48.25	Top of divide ridge between Hill Creek and Pioche canons, 400 ft. above hollow, bears N. and S.; main trail to Thompsons on top of ridge ; Descend .
77.50	Creek, 1 lk. wide, 1 in. deep, in hollow, 800 ft. below ridge, course N.; ascend .
.79.94	The cor. of secs. 25, 26, 35, and 36. Land, mountainous. Soil, sandy loam and gravelly; 2nd and 3rd rate. Timber, pine and aspen. Undergrowth, oak, deer, sage, and maple brush. Good grass for grazing. Mountainous or heavily timbered land, or land covered with dense undergrowth, 79.94 chs.
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	N.0°01'W., bet. secs. 25 and 26. Over mountainous land; through dense undergrowth and scattering timber; descend .
11.70	Creek, 1 lk. wide, 1 in. deep, in hollow, 200 ft. below sec. cor., course N.W.; ascend ..
22.00	Top of ridge, 500 ft. above hollow, bears E. and W.; a corral bears West about 5.00 chs. ;descend .
28.15	Creek, 1 lk. wide, 2 ins. deep, in hollow, 150 ft. below ridge, course S.20°W.; ascend .
40.00	Set a sandstone, 16x8x5 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W. face; from which A pine, 30 ins. diam., bears N.30°E., 260 lks. dist., marked $\frac{1}{4}$ S.25, B.T. No other tree within limits; raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
57.00	Leave undergrowth, bears E. and W.
60.00	Top of ridge, 300 ft. above hollow, bears E. and W.; descend .
63.00	Enter dense undergrowth, bears E. and W.
80.00	Set a sandstone, 18x12x7 ins., 12 ins. in the ground, for

Subdivision of T.18 S., R.19 E.-Continued

	Chains cor.of secs.23,24,25, and 26,marked with 2 notches on S.and 1 notch on E.edges;and raise a mound of stone, 2 ft.base,1½ ft.high,W.of cor.Pits impracticable. Land,mountainous. Soil,sandy loam and gravelly;2nd and 3rd rate. Timber,pine and aspen. Undergrowth,oak and deer brush. Good grass for grazing. Mountainous land,or land covered with dense under-growth,80.00 chs. August 7,1901:At the noon hour the sky is overcast and solar observations are impossible.
	N.89° 54'E.,on a random line betsecs.24 and 25.
40.00	Set temp.± sec.cor.
79.90	Intersect E.bdy.of Tp.,at the cor.of secs.19,24,25, and 30,heretofore described. Thence I run S.89° 54'W.,on a true line betsecs.24 and 25. Over mountainous land;through dense undergrowth;as-cend .
8.00	Top of ridge,100 ft.above sec.cor.,bears N.25°E.and S.25°W.;descend through scattering timber.
19.00	Bottom of hollow,300 ft.below ridge,course N.10°E.;ascend .
25.50	Top of divide ridge between Pioche and Hill Creek canons,450 ft.above hollow,bears N.and S.;descend .
27.50	Main trail to Thompsons,bears N.and S.
39.95	Set a sandstone,16x12x7 ins.,11 ins.in the ground,for ± sec.cor.,marked ± on N.face;from which An aspen,6 ins.diam.,bears N.20°E.,20 lks. dist.,marked.± S.24B.T. An aspen,4 ins.diam.,bears S.30°W.,200 lks. dist.,marked ± S.25,B.T.
40.50	Bottom of hollow,200 ft.below ridge,course N.W.;as-cend .

Subdivision of T.18 S., R.19 E. -Continued.

Chains	
79.90	The cor. of secs. 23, 24, 25, and 26. Land, mountainous. Soil, sandy loam and gravelly; 2nd and 3rd rate. Timber, pine and aspen. Undergrowth, oak, deer brush and aspen saplings. Good grass for grazing. Mountainous land; or land covered with dense under-growth, 79.90 chs.
	N. 0° 01' W., bet. secs. 23 and 24. Over mountainous land; through dense undergrowth and scattering timber; descend.
27.00	Creek, 2 lks. wide, 1 ins. deep, in bottom of hollow, 300 ft. below sec. cor., course N.W.; ascend. A spring bears S.E. about 11.00 chs. dist.
40.00	Set a sandstone, 16x10x11. ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which An aspen, 4 ins. diam., bears S. 35° E., 30 lks. dist., marked $\frac{1}{4}$ S. 24, B.T. A pine, 10 ins. diam., bears S. 10° W., 20 lks. dist., marked $\frac{1}{4}$ S. 25, B.T.
47.50	Top of ridge, 300 ft. above hollow, bears N. 30° W. and S. 30° E.; descend.
80.00	Set a sandstone, 22x14x6 ins., 16 ins. in the ground, for cor. of secs. 13, 14, 23, and 24, marked with 3 notches on S. and 1 notch on E. edges; from which An aspen, 5 ins. diam., bears N. 88° E., 285 lks. dist., marked T. 18 S., R. 19 E., S. 13, B.T. An aspen, 5 ins. diam., bears S. 37° E., 300 lks. dist., marked T. 18 S., R. 19 E., S. 24, B.T. No other trees within limits; raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy loam and gravelly; 2nd and 3rd rate. Timber, pine and aspen.

Subdivision of T.18 S., R.18 E.-Continued.

Chains	Undergrowth, oak and deer brush and aspen saplings. Good grass for grazing. Mountainous land; br land covered with dense undergrowth, 80 .00 chst.
	N.89° 54'E., on a random line bet. secs. 15 and 24.
40.00	Set temp. $\frac{1}{2}$ sec.cor.
79.92	Intersect E.bdy.of Tp., 28 lks.N., of the cor.of secs. 13, 18, 19, and 24, heretofore described. Thence I run N.89° 54'W., on a true line bet. secs. 15 and 24. Over mountainous land; through dense undergrowth and scattering timber; ascend .
15.00	Top of divide ridge, between Hill Creek and Pioche canons, 400 ft. above sec.cor., bears N.and S.; main trail to Thompsons on top of ridge. Descend .
25.00	Enter heavy timber, bears N.and S.
39.96	Set a sandstone, 16x10x5 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; from which An aspen, 6 ins.diam., bears N.40° E., 20 lks. dist., marked $\frac{1}{2}$ S.13,B.T. An aspen, 6 ins.diam., bears S.50° E., 20 lks. dist., marked $\frac{1}{2}$ S.24,B.T.
42.00	Bottom of hollow, 200 ft. below ridge, course N.W.; ascend .
55.00	Top of ridge, 100 ft. above hollow, bears N.W. and S.E.; descend .
78.15	Creek, 2 lks.wide, 2 ins.deep, in hollow, 200 ft. below ridge, course N.W.; ascend .
79.92	The cor.of secs. 13, 14, 23, and 24. Land, mountainous. Soil, sandy loam and gravelly; 2nd and 3rd rate. Timber, pine and aspen. Undergrowth, oak, sage and deer brush. Good grass for grazing.

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Subdivision of T.18 S., R.19 E. -Continued.

Chains	Mountainous or heavily timbered land, or land covered with dense undergrowth, 79.92cls. August 7, 1901.
	August 8, 1901: At 7 h 2 m a.m., I set off $39^{\circ} 15' N.$, on the lat. arc; $16^{\circ} 16' N.$, on the decl. arc; and determine a true meridian with the solar at the cor. of secs. 13, 14, 23, and 24. Thence I run $N.0^{\circ} 01' W.$, bet. secs. 13 and 14. Over mountainous land; through dense undergrowth and scattering timber; descend.
4.00	Creek, 2 lks. wide, 1 in. deep, in hollow, 50 ft. below sec. cor., course N.W.; ascend.
18.00	Top of ridge, 200 ft. above hollow, bears E. and W.; descend.
.23.00	Bottom of hollow, 200 ft. below ridge, course W.; ascend.
37.00	Top of ridge, 250 ft. above hollow, bears E. and W.; enter heavy timber, bears with ridge; descend.
40.00	Set a sandstone, 18x8x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which An aspen, 5 ins. diam., bears $S.20^{\circ} E.$, 48 lks. dist., marked $\frac{1}{4}$ S. 13, B.T. An aspen, 4 ins. diam., bears $N.44^{\circ} W.$, 25 lks. dist., marked $\frac{1}{4}$ S. 14, B.T.
75.00	Foot of descent, 400 ft. below ridge, bears $N.25^{\circ} E.$ and $S.25^{\circ} W.$; enter bottom of Hill Creek Canon. Leave heavy and enter scattering timber.
79.00	Trail in canon, bears with canon.
80.00	Set a sandstone, 22x14x6 ins., 16 ins. in the ground, for cor. of secs. 11, 12, 13, and 14, marked with 4 notches on S. and 1 notch on E. edges; from which An aspen, 5 ins. diam., bears $N.88^{\circ} E.$, 290 lks. dist., marked T. 18 S., R. 19 E., S. 12, B.T.

Subdivision of T.18 S., R.19 E.-Continued.

Chains	An aspen, 5 ins. diam., bears S. 37° E., 300 lks. dist., marked $\frac{1}{4}$ S. 13, B.T. No other trees within limits; raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy and gravelly; 3rd rate. Timber, pine and aspen.. Undergrowth, oak, sage and deer brush. Good grass for grazing. Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.
40.00	S. $89^{\circ} 54'$ E., on a random line bet. secs. 12 and 13. Set temp. $\frac{1}{4}$ sec. cor.
79.92	Intersect E. bdy. of Tp., 24 lks. S. of the cor. of secs. 7, 12, 13, and 18, heretofore described. Thence I run S. $89^{\circ} 56'$ W., on a true line bet. secs. 12 and 13. Over mountainous land; through scattering undergrowth; descend .
39.96	Set a sandstone, 16x12x4 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which An aspen, 6 ins. diam., bears N. 40° E. 270 lks. dist., marked $\frac{1}{4}$ S. 12, B.T. An aspen. 4 ins. diam., bears S. 50° W., 80 lks. dist., marked $\frac{1}{4}$ S. 13, B.T. Enter heavy timber, bears N. and S.
43.75	Creek, 2 lks. wide, 2 ins. deep, in canon, 400 ft. below sec. cor., course N. 70° W.; ascend . A spring bears S. E. 2.00 chs.
60.00	Top of ridge, 250 ft. above canon, bears N. and S.; des- cend .
77.50	Foot of descent, 300 ft. below ridge, bears N. 25° E. and S. 25° W.; enter bottom of Hill Creek Canon; leave heavy and enter scattering timber .
79.00	Trail in canon, bears with canon.

Subdivision of T.18 S., R.19 E.-Continued.

Ghains

- 79.92 The cor. of secs. 11, 12, 13, and 14.
 Land, mountainous.
 Soil, sandy loam and gravelly; 2nd and 3rd rate.
 Timber, pine and aspen.
 Undergrowth, oak, sage and deer brush.
 Good grass for grazing.
 Mountainous or heavily timbered land, 79.92 chs.
-

N. 0° 01' W., bet. secs. 11 and 12.

Over mountainous land; through dense undergrowth and scattering timber; along bottom of Hill Creek Canon.

- 3.50 Hill Creek, 6 lks. wide, 4 ins. deep, course N. 25° E.;
 10.00 Leave canon, bears N. 20° E. and S. 20° W.; ascend.
 20.00 Top of ridge, 250 ft. above canon, bears N.E. and S.W.; descend.
 32.50 Bottom of hollow, 200 ft. below ridge, course N. 65° E., ascend.
 40.00 Set a sandstone, 18x9x9 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 58.50 Top of ridge, 300 ft. above hollow, bears E. and W.; descend.
 68.00 Bottom of hollow, 250 ft. below ridge, course E.; ascend.
 80.00 Set a sandstone, 24x12x8 ins., 18 ins. in the ground, for cor. of secs. 1, 2, 11, and 12, marked with 5 notches on S. and 1 notch on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 Land, mountainous.
 Soil, sandy and gravelly loam; 2nd rate.
 Timber, pine and aspen.
 Undergrowth, oak and sage brush.
 Good grass for grazing.

Subdivision of T.18 S., R.19 E. -Continued.

Chains	Mountainous land; or land covered with dense under-growth, 80.00 chs. August 8, 1901: At this cor. I set off $16^{\circ} 12' N.$, on the decl. arc; and at 0h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ} 16' N.$,
	N. $89^{\circ} 56' E.$, on a random line bet. secs. 1 and 12.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
60.00	Intersect E. bdy. of Tp., 10 lks. N., of the cor. of secs. 1, 5, 7, and 12, heretofore described. Thence I run West, on a true line, bet. secs. 1 and 12. Over mountainous land; through dense undergrowth and scattering timber; descend .
40.00	Set a sandstone, $16 \times 10 \times 5$ ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
57.00	Foot of descent, 500 ft. below sec. cor., bears N. and S.; enter bottom of Hill Creek Canon.
58.20	Trail in canon, bears N. and S.
60.40	Hill Creek, 6 lks. wide, 5. ins. deep, rapid current, course N.
62.00	Leave canon bottom, bears N. and S.; ascend .
80.00	The cor. of secs. 1, 2, 11, and 12. Land, mountainous. Soil, sandy and gravelly; 3rd rate. Timber, pine and aspen. Undergrowth, oak and sage brush . Good grass for grazing. Mountainous land; or land covered with dense under-growth, 80.00 chs.
	N. $0^{\circ} 01' W.$, on a random line bet. secs. 1 and 2.

Subdivision of T. 18 S., R. 19 E. -Continued

Chains.

- 40.00 Set temp. $\frac{1}{2}$ sec.cor.
- 79.70 Intersect N.bdy.of Tp., 19 lks.E., of the cor.of secs. 1, 2, 35, and 36, heretofore described.
- Thence I run.
S.0°09' E., on a true line bet. secs. 1 and 2.
- Over mountainous land; through dense undergrowth and scattering timber; ascend.
- 10.00 Top of ridge, 100 ft. above sec.cor., bears N.E. and S.W.; descend.
- 39.70 Set a sandstone, 20x10x8 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
- 59.00 Bottom of hollow, 400 ft. below ridge, course E.; ascend.
- 69.10 Top of ridge, 350 ft. above hollow, bears E. and W.; descend.
- 79.70 The cor. of secs. 1, 2, 11, and 12.
- Land, mountainous.
- Soil, sandy loam and gravelly; 2nd and 3rd rate.
- Timber, pine and aspen.
- Undergrowth, oak and sage brush.
- Good grass for grazing.
- Mountainous land, or land covered with dense undergrowth, 79.70 chs.

August 8, 1901.

August 9, 1901: At 7 h 3 m a.m., l.m.t., I set off 39°12' N., on the lat.arc; 16°00' N., on the decl.arc; and determine a true meridian, with the solar, at the cor. of secs. 2, 3, 34, and 35, on S.bdy. of Tp., heretofore described.

Thence I run

N.0°01' W., bet. secs. 34 and 35.

Over mountainous land; through dense undergrowth and

Subdivision of T. 18 S., R. 19 E. -Continued.

Chains	scattering timber; descend .
40.00	Set a sandstone, 14x8x6 ins., 9 ins. in the ground, for sec.cor., marked $\frac{1}{4}$ on W.face; from which A pine, 18 ins. diam., bears N.45° E., 50 lks. dist., marked $\frac{1}{4}$ S.35, B.T. A pine, 8 ins. diam., bears N.85° W., 25 lks. dist., marked $\frac{1}{4}$ S.34, B.T. .
46.00	Bottom of hollow, 200 ft. below sec.cor., course S.W.; ascend .
65.00	Top of ridge, 300 ft. above hollow, bears N.E. and S.W.; descend .
80.00	Set a sandstone, 14x10x6 ins., 9 ins. in the ground, for cor.of secs. 26, 27, 34, and 35, marked with 1 notch on S.and 2 notches on E.edges; from which An aspen, 5 ins. diam., bears N.78° E., 64 lks. dist., marked T.18 S., R.19 E., S.26, B.T. An aspen, 4 ins. diam., bears S.20° E., 245 lks. dist., marked T.18 S., R.19 E., S.35, B.T. An aspen, 4 ins. diam., bears S.30° W., 250 lks. dist., marked T.18 S., R.19 E.-S.34, B.T. An aspen, 4 ins. diam., bears N.20° W., 60 lks. dist., marked T.18 S., R.19 E., S.27, B.T.
	Land, mountainous.
	Soil, sandy and gravelly ; 3rd rate.
	Timber, pine and aspen.
	Undergrowth, oak and sagebrush .
	Good grass for grazing .
	Mountainous land, or land covered with denseunder- growth, 80.00 chs.
	East, on a random line bet.secs. 26 and 35.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
79.96	Intersect N. and S.line, 1D lks.N. of the cor.of secs. 25, 26, 35, and 36. Thence I run

Subdivision of T.R. S. 218 E.-Continued.

Shanks N.89°56'W.,on a true line bet.sec.26 and 35.

Over mountainous land;through dense undergrowth and scattering timber;ascend .

35.50 Top of ridge,200 ft.above sec.cor.,bears N.and S.;descend .

35.90 Set a sandstone,18x8x7 ins.,12 ins.in the ground,for $\frac{1}{2}$ sec.cor.,marked $\frac{1}{2}$ on N.face;and raise a mound of stone,2 ft.base,1 $\frac{1}{2}$ ft.high,N.of cor.Pits impracticable.

43.00 Bottom of hollow,100 ft.below ridge,course N.;ascend .

47.00 Top of divide ridge,between Hill Creek Canon and canon on south,250 ft.above hollow,bears N.30°W. and S.30°E.;descend .

~ 79.00 The cor.of secs.26,27,34, and 35.

Land,mountainous.

Soil,sandy and gravelly and rocky;3rd and 4th rate.

Timber,pine and aspen.

Undergrowth,oak and sage brush.

Good grass for grazing.

Mountainous land;or land covered with dense undergrowth,79 .96 chs.

N.0°01'W.,betsecs.26 and 27.

Over mountainous land;through scattering timber and scattering undergrowth;descend .

80.00 Bottom of hollow,200 ft.below sec.cor.,course S.20°W.
Ascend .

46.00 Set a sandstone,20x8x7 ins.,35 ins.in the ground,for $\frac{1}{2}$ sec.cor.,marked $\frac{1}{2}$ on W.face;and raise a mound of stone,2 ft.base,1 $\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.

50.00 Top of ridge,divide between Hill Creek Canon and canon on south,500 ft.above hollow,bears N.80°W. and S.80°E.;descend .

Subdivision of T.18.S., R.19.E. -Continued.

Chains

80.00 Set a sandstone, 22x12x6 ins., 16 ins. in the ground, for cor. of secs. 22, 23, 26, and 27, marked with 2 notches on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, gravelly and rocky; 3rd and 4th rate.

Timbercedar pine and aspen.

Undergrowth, sage brush and oak.

Good grass for grazing.

Mountainous land, 80.00 chs.

August 9, 1901: At this cor. I set off $15^{\circ} 56' N.$, on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ} 14' N.$

40.00 S. $89^{\circ} 56' E.$, on a random line bet. secs. 25 and 26.
Set temp. $\frac{1}{2}$ sec. cor.

80.02 Intersect N. and S. line, 10 lks. S. of the cor. of secs. 23, 24, 25, and 26.

Thence I run

West, on a true line bet. secs. 23 and 26.

Over mountainous land; through dense aspen saplings; ascend.

10.00 Top of ridge, 100 ft. above sec. cor., bears N. $20^{\circ} W.$ and S. $20^{\circ} E.$; descend.

20.00 Bottom of hollow, 100 ft. below ridge, course N.; ascend.

30.00 Top of ridge, 150 ft. above hollow, bears N. $55^{\circ} W.$ and S. $55^{\circ} E.$; descend.

40.01 Set a sandstone, 18x10x5 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; from which

An aspen, 4 ins. diam., bears N. $15^{\circ} E.$, 25 lks. dist., marked $\frac{1}{2}$ S. 23, B. T.

An aspen, 4 ins. diam., bears S. $35^{\circ} E.$, 40 lks. dist., marked $\frac{1}{2}$ S. 26, B. T.

64.50 Creek, 10 lks. wide, 2 ins. deep, in hollow, 300 ft. below

Subdivision of T.18 S., R.19 E.-Continued.

Chains ridge, course N.25°E.; ascend .

— 80.02 The cor.of secs.22,23,26, and 27.

Land,mountainous.

Soil,sandy and gravelly and rocky;3rd and 4th rate.

No timber.

Undergrowth,oak and sage brush and aspen saplings.

Good grass for grazing.

Mountainous land,or land covered with dense under-growth,80.02 chs..

N.0°01'W.,betsecs.22 and 23.

Over mountainous land;through dense undergrowth ;
ascend .

14.00 Top of ridge,200 ft.above sec.cor.,bears N.20°E.and
S.W.;descend .

40.00 Set a sandstone,18x10x5 ins.,12 ins.in the ground,
for $\frac{1}{2}$ sec.cor.,marked $\frac{1}{2}$ on W.face;from which
An aspen,5 ins.diam.,bears S.51°E.,225 lks.
dist.,marked $\frac{1}{2}$ S.23,B.T.
An aspen,5 ins.diam.,bears N.48°W.,50 lks.
dist.,marked $\frac{1}{2}$ S.22,B.T.

48.50 Creek,3 lks.wide, 2 ins.deep,in hollow,300 ft.below
ridge,course N.70°E.;ascend .

80.00 Set a sandstone,22x12x8 ins.,16 ins.in the ground,for
cor.of secs.14,15,22, and 23,marked with 3 notches on
S.and 2 notches on E.edges;and raise a mound of
stone,2 ft.base,1 $\frac{1}{2}$ ft.high,W.of cor.Pits impractic-
able.

Land,mountainous.

Soil,sandy loam and gravelly ;2nd and 3rd rate.

No timber.

Undergrowth,oak and sage brush and aspen saplings.

Good grass for grazing.

Mountainous land,or land covered with dense under-growth,80.00 chs..

Subdivision of T. 18 S., R. 19 E. -Continued.

Chains	
	East, on a random line bet. secs. 14 and 23.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
79.86	Intersect N. and S. line, 15 lks. S. of the cor. of secs. 13, 14, 23, and 24. Thence I run $S.89^{\circ} 54' W.$, on a true line bet. secs. 14 and 23. Over mountainous land; through scattering pine and aspen timber and scattering undergrowth; ascend .
10.00	Top of ridge, 200 ft. above sec. cor., bears N. $20^{\circ} E.$ and S. $20^{\circ} W.$; descend .
19.00	Leave timber, bears N. and S.
27.00	Foot of descent, 300 ft. below ridge, bears N. $30^{\circ} E.$ and S. $30^{\circ} W.$; enter bottom of Hill Creek Canon.
28.50	Trail in canon, bears with canon.
29.20	Hill Creek, 6 lks. wide, 2 ins. deep, rapid current, rocky bottom, course N. $30^{\circ} E.$
55.00	Leave canon, bears N. $30^{\circ} E.$ and S. $30^{\circ} W.$; ascend .
39.95	Set a sandstone, 16x9x8 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
47.50	Top of ridge, 150 ft. above canon, bears N.W. and S.E.; descend .
60.00	Bottom of hollow, 60 ft. below ridge, course S. $30^{\circ} E.$; ascend .
79.86	The cor. of secs. 14, 15, 22, and 23. Land, mountainous. Soil, sandy loam and gravelly; 2nd and 3rd rate. Timber, pine and aspen. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.86 chs.

August 9, 1901.

Subdivision of T.18 S., R.19 E.-Continued.

Chains August 10, 1861: At 7 h 2 m a.m., l.m.t., I set off 39°
 $15' N.$, on the lat. arc; $15^{\circ} 42' N.$, on the decl. arc; and
determine a true meridian, with the solar, at the cor.
of secs. 14, 15, 22, and 23.

Thence I run

$N.0^{\circ} 01' W.$, bet. secs. 14 and 15.

Over mountainous land; through dense undergrowth; as-
cend.

20.00 Top of ridge, 300 ft. above sec. cor., bears N.E. and S.

W.; descend .

30.00 Bottom of hollow, 350 ft. below ridge, course E.; ascend.

40.00 Set a sandstone, $24 \times 14 \times 12$ ins., 18 ins. in the ground,
for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which

An aspen, 4 ins. diam., bears $N.86^{\circ} E.$, 15 lks.
dist., marked $\frac{1}{4}$ S. 14, B.T.

An aspen, 4 ins. diam., bears $S.40^{\circ} W.$, 30 lks.
dist., marked $\frac{1}{4}$ S. 15, B.T.

50.00 Top of ridge, 400 ft. above hollow, bears $N.20^{\circ} E.$ and S.
 $20^{\circ} W.$; descend .

60.00 Set a sandstone, $16 \times 9 \times 6$ ins., 11 ins. in the ground, for
cor. of secs. 10, 11, 14, and 15, marked with 4 notches on
S. and 2 notches on E. edges; from which

An aspen, 4 ins. diam., bears $N.15^{\circ} E.$, 16 lks.
dist., marked T. 18 S., R. 19 E., S. 11, B.T.

An aspen, 4 ins. diam., bears $S.30^{\circ} E.$, 26 lks.
dist., marked T. 18 S., R. 19 E., S. 14, B.T.

An aspen, 4 ins. diam., bears $S.45^{\circ} W.$, 80 lks.
dist., marked T. 18 S., R. 19 E., S. 15, B.T.

An aspen, 4 ins. diam., bears $N.45^{\circ} W.$, 80 lks.
dist., marked T. 18 S., R. 19 E., S. 10, B.T.

Land, mountainous.

Soil, sandy loam and gravelly; 2nd and 3rd rate.

No timber.

Undergrowth oak and sage brush and aspen saplings.

Good grass for grazing.

Mountainous land, or land covered with dense under-

Subdivision of T. 18 S., R. 19 E. -Continued.

Chains	growth, 80.00 chs.
	N. 89° 54' E., on a random line, bet. secs. 11 and 14.
40.00	Set temp. $\frac{1}{4}$. sec. cor.
79.82	Intersect N. and S. line, 12 lks. N. of the cor. of secs. 11, 12, 13, and 14. Thence I run S. 89° 59' W., on a true line bet. secs. 11 and 14. Over mountainous land; through dense undergrowth and scattering timber; along bottom of Hill Creek Canon.
1.00	Hill Creek, 5 lks. wide, 6 ins. deep, rapid current, course N. 25° E.;
5.00	Leave canon bottom, bears N. 25° E. and S. 25° W.; ascend.
17.00	Top of ridge, 200 ft. above canon, bears N. E. and S. W.; descend.
30.50	Leave timber, bears N. and S.
32.40	Bottom of hollow, 150 ft. below ridge, course N. 50° E.; ascend.
39.91	Set a sandstone, 24x12x6 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
69.50	Top of ridge, 300 ft. above hollow, bears N. 15° E. and S. 15° W.; descend. Trail on ridge.
79.82	The cor. of secs. 10, 11, 14, and 15. Land, mountainous. Soil, sandy loam and gravelly; 2nd and 3rd rate. Timber, pine and aspen. Undergrowth, oak and sage brush and aspen saplings. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.82 chs..
	N. 0° 01' W., bet. secs. 10 and 11.

Subdivision of T. 18 S., R. 19 E. -Continued.

Chains	Over mountainous land; through dense undergrowth; ascend.
30.00	Top of ridge, 200 ft. above sec. cor., bears E. and W.; thence along west side of ridge.
40.00	Set a sandstone, 24x10x4 ins., 18. ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
80.00	Set a sandstone, 18x8x7 ins., 12 ins. in the ground, for cor. of secs. 2, 3, 10, and 11, marked with 5 notches on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, sandy loam and gravelly; 2nd and 3rd rate.
	No timber.
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	August 10, 1901: At the noon hour the sky is overcast and solar observations are impossible.

	N. $89^{\circ} 59' E.$, on a random line bet. secs. 2 and 11.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
79.70	Intersect N. and S. line, 5 lks. S. of the cor. of secs. 1, 2, 11, and 12.
	Thence I run
	S. $89^{\circ} 57' W.$, on a true line bet. secs. 2 and 11.
	Over mountainous land; through dense undergrowth; descend.
35.00	Bottom of hollow, 400 ft. below sec. cor., course S.; ascend.
39.85	Set a sandstone, 20x12x6 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; from which
	An aspen, 4 ins. diam., bears N. $15^{\circ} W.$, 100 lks. dist., marked $\frac{1}{2}$ S. 2; B.T.

Subdivision of T.18 S., R.19 E., Continued.

Chains	Noother tree within limits; raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
40.24	Top of ridge, 100 ft. above hollow, bears N. 20° E. and S. 20° W.; descend.
45.00	Bottom of hollow, 100 ft. below ridge, course N.; ascend.
70.00	Top of ridge, 300 ft. above hollow, bears N. and S.; trail on top of ridge; descend.
79.70	The cor. of secs. 2, 3, 10, and 11. Land, mountainous. Soil, sandy and gravelly loam; bind rate. No timber. Undergrowth, oak and sage brush and aspen saplings. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.70 chs.

	N. 0° 01' W., on a random line bet. secs. 2 and 3.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
79.82	Intersect N. bdy. of Tp., 12 lks. E. of the cor. of secs. 2, 3, 34, and 35, heretofore described. Thence I run S. 0° 06' E., on a true line bet. secs. 2 and 3. Over mountainous land; through dense undergrowth; descend.
1.00	Creek, 2 lks. wide, 1 in. deep, in hollow, 10 ft. below sec. cor., course N. W.; ascend.
1.10	A spring bears E. 1.00 ch. dist.
39.82	Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
49.50	Top of ridge, 300 ft. above hollow, bears N. 40° W. and S. 40° E.; descend gradually along west side of ridge.
79.82	The cor. of secs. 2, 3, 10, and 11. Land, mountainous.

Subdivision of T.18 S., R.19 E.-Continued.

Chains	<p>Soil, sandy loam and gravelly; 2nd and 3rd rate.</p> <p>No timber.</p> <p>Undergrowth, oak, aspen saplings and sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 79.82 chs.</p>
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August 10, 1901.

August 12, 1901: at 7 h 3 m a.m., l.m.t., I set off $39^{\circ} 12' N.$, on the lat. arc; $15^{\circ} 07' N.$, on the decl. arc; and determine a true meridian, with the solar, at the cor. of secs. 3, 4, 33, and 34, on S.bdy. of Tp., heretofore described.

Thence I run

N. $0^{\circ} 02' W.$, bet. secs. 33 and 34.

Over mountainous land; through scattering timber and scattering undergrowth; descend abruptly over broken ground.

30.00 Bottom of canon, 600 ft. below sec.cor., course W.; ascend.

40.00 Set a sandstone, 18x8x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

45.00 Top of ridge, 500 ft. above canon, bears N. $70^{\circ} E.$ and S. $70^{\circ} W.$; descend ..

60.00 Bottom of canon, 450 ft. below ridge, course S.W.; creek, 5 lks. wide, 3 ins. deep, in bottom; ascend.

80.00 Set a sandstone, 20x10x5 ins., 15 ins. in the ground, for cor. of secs. 27, 28, 33, and 34, marked with 1 notch on S. and 3 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, gravelly and rocky; 3rd and 4th rate.

Subdivision of T.18 S., R.19 E. -Continued.

Chains	<p>Timber, pine, aspen, and cedar.</p> <p>Undergrowth, oak and sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, 80.00 chs.</p>
	<p>East, on a random line bet. secs. 27 and 34.</p>
40.00	<p>Set temp. \pm sec. cor.</p>
79.90	<p>Intersect N. and S. line, 7 lks. S. of the cor. of secs. 26, 27, 34, and 35.</p> <p>Thence I run \checkmark S. $89^{\circ} 57' W.$, on a true line bet. secs. 27 and 34.</p> <p>Over mountainous land; through dense undergrowth; descend.</p>
4.45	<p>Bottom of canon, 100 ft. below sec. cor., course S. $20^{\circ} W.$; ascend.</p>
6.20	<p>Enter scattering timber, bears N. and S.</p>
14.00	<p>Top of ridge, 350. ft. above canon, bears N. $37^{\circ} E.$ and S. $37^{\circ} W.$; descend.</p>
39.95	<p>Set a sandstone, 14x12x5 ins., 9 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked \pm on N. face; from which</p> <p>A pine, 4 ins. diam., bears N. $40^{\circ} E.$, 75 lks. dist., marked \pm S. 27, B.T.</p> <p>A pine, 8 ins. diam.; bears S. $25^{\circ} W.$, 250 lks. dist., marked \pm S. 34, B.T.</p>
56.50	<p>Bottom of canon, 400 ft. below ridge, course S. W.; ascend.</p>
79.90	<p>The cor. of secs. 27, 28, 33, and 34.</p> <p>Land, mountainous.</p> <p>Soil, sandy loam and rocky; 2nd and 4th rate.</p> <p>Timber, pine and aspen and cedar.</p> <p>Undergrowth, oak, sage brush, mahogany, service berry, and deer brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 79.90 chs.</p>

Subdivision of T.18 S., R.19 E.-Continued.

Chains	N.0°02'W., bet. secs. 27 and 28. Over mountainous land; through dense undergrowth and scattering timber; ascend.
12.50	Top of ridge, 300 ft. above sec. cor., bears N.15°E. and S.15°W.; descend.
40.00	Bottom of hollow, 350 ft. below ridge, course S.60°W., Set a sandstone, 20x10x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked π on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Ascend.
51.50	Top of ridge, 400 ft. above hollow, bears N.50°E. and S.50°W.; descend.
80.00	Set a sandstone, 20x10x4 ins., 15 ins. in the ground, for cor. of secs. 21, 22, 27, and 28, marked with 2 notches on S. and 3 notches on E. edges; from which A pine, 10 ins. diam., bears N.80°E., 85 lks. dist., marked T.18 S., R.19 E., S.22, B.T. A pine, 8 ins. diam., bears N.30°W., 75 lks. dist., marked T.18 S., R.19 E., S.21, B.T. No other trees within limits; raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy loam and rocky; 2nd and 4th rate. Timber, pine and aspen. Undergrowth, oak, aspen saplings, sage brush, deer brush, and mahogany. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs. August 12, 1901: At this cor. I set off 15°02'N., on the decl. arc; and at 0 h 2 m p.m., 1.m.t., observe the sun on the meridian, the resulting lat. is 59°14'N.

N.89°57'N., on a random line bet. secs. 22 and 27.

Subdivision of T.18 S., R.19 E.-Continued.

Chains	
40.00	Set temp. $\frac{1}{2}$ sec.cor.
80.00	Intersect N. and S. line, 2 lks. N. of the cor. of secs. 22, 23, 26, and 27. Thence I run S. $89^{\circ} 58' W.$, on a true line bet. secs. 22 and 27. Over mountainous land; through dense undergrowth and scattering timber; ascend.
18.00	Top of ridge, 250 ft. above sec.cor., bears N. $25^{\circ} E.$ and S. $25^{\circ} W.$; descend.
25.00	Bottom of hollow, 100 ft. below ridge, course N.E.; ascend.
40.00	Set a sandstone, 18x10x5 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N. face; from which An aspen, 5 ins. diam., bears N. $18^{\circ} W.$, 40 lks. dist., marked $\frac{1}{2}$ S. 22; B.T. An aspen, 4 ins. diam., bears S. $30^{\circ} W.$, 25 lks. dist., marked $\frac{1}{2}$ S. 27, B.T.
48.00	Top of divide ridge, between Hill Creek Canon and canon on South, 100 ft. above hollow, bears N.W. and S.E.; descend.
80.00	The cor. of secs. 21, 22, 27, and 28. Land, mountainous. Soil, sandy loam and rocky; 2nd and 4th rate. Timber, pine and aspen. Undergrowth, oak, sage and deer brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	N. $0^{\circ} 02' W.$, bet. secs. 21 and 22. Over mountainous land; through dense undergrowth and scattering timber; descend.
2.10	Bottom of hollow, 10 ft. below sec.cor., course S. $30^{\circ} W.$; ascend.

Subdivision of T. 18 S., R. 19 E.-Continued.

Chains	
17.85	Top of ridge, 400 ft. above hollow, bears E. and W.; descend.
40.00	Set a sandstone, 20x10x10 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
70.00	Bottom of hollow, 400 ft. below ridge, course N. 70° W.; ascend.
80.00	Set a sandstone, 30x10x6 ins., 22 ins. in the ground, for cor. of secs. 15, 16, 21, and 22, marked 18 S. on N.E. and 19 E. on S.E. faces; with 3 notches on S. and 3 notches on E. edges; from which <ul style="list-style-type: none"> A pine, 8 ins. diam., bears N. 25° E., 50 lks. dist., marked T. 18 S., R. 19 E., S. 15, B.T. A pine, 8 ins. diam., bears S. 60° E., 100 lks. dist., marked T. 18 S., R. 19 E., S. 22, B.T. A pine, 5 ins. diam., bears S. 20° W., 75 lks. dist., marked T. 18 S., R. 19 E., S. 21, B.T. A cedar, 10 ins. diam., bears N. 80° W., 150 lks. dist., marked T. 18 S., R. 19 E., S. 16, B.T.
	Land, mountainous.
	Soil, sandy loam and rocky; 2nd and 4th rate.
	Timber, scattering pine and cedar.
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	August 12, 1901: At this cor. I set off $59^{\circ} 15' N.$, on the lat. arc; $14^{\circ} 59' N.$, on the decl. arc; and at 5 h 2 m. p.m., i.m.t., determine a true meridian with the solar, and mark a point thereon on a stone, firmly set in the ground, 5.00 chs. N. of the cor.
	At 10 h 3 m p.m., i.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark a point in the line thus determined, by a tack driven in a wooden plug, set firmly in the ground, east of

Subdivision of T. 18 S., R. 19 E.-Continued.

Chains

the stone already set 5.00 chs. N. of the cor.

August 12, 1901.

August 13, 1901: At 6 h 30 m a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ}34.3'$ to the west, and mark a point in the true meridian, thus determined by cutting a small groove in the stone, already set 5.00 chs. N. of the cor.; this mark falls 0.28 ins. east of the true meridian established by the solar.

At 7 h 2 m a.m., l.m.t., I set off $39^{\circ}15'E.$, on the lat. arc; $14^{\circ}48'N.$, on the decl. arc; and mark a point in the true meridian determined with the solar, by a cross on the stone, already set 5.00 chs. N. of the cor.; this mark falls 0.33 ins. east of the true meridian, established by Polaris observation.

The solar apparatus by p.m. and a.m. observations, determines positions for true meridians, respectively about $0^{\circ}16'$ west and $0^{\circ}17'$ east of the true meridian established by observation on Polaris; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 7 h 30 m a.m., is $15^{\circ}52.6'W.$, the angle time determined, reduced by the table page 100 of the Manual, gives the mean mag. decl. $15^{\circ}47'E.$

From the cor. of secos. 16, 16, 21, and 22,

I run

$N.89^{\circ}58'E.$, on a random line bet. secos. 15 and 22.

Set temp. & sec.cor.

Intersect N. and S. line, at the cor. of secos. 14, 15, 22, and 23.

Thence I run

$S.89^{\circ}58'W.$, on a true line bet. secos. 15 and 22.

Over mountainous land; through scattering oak and sage brush; ascend.

Subdivision of T. 18 S., R. 19 E.-Continued.

Chains

- 6.00 Top of ridge, 100 ft. above sec.cor., bears N. and S.; descend.
- 21.50 Enter dense aspen saplings, bears N. and S. and leave oak and sage brush.
- 22.20 Bottom of hollow, 125 ft. below ridge, course S.E.; ascend.
- 26.00 Leave aspen saplings and enter dense oak and sage brush, bears N. and S.
- 28.50 Top of divide ridge, between Hill Creek Canon and canon on West, 300 ft. above hollow, bears N. 10° E. and S. 10° W.; descend.
- 39.06 Set a sandstone, 18x7x6 ins. 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 58.00 Bottom of hollow, 250 ft. below ridge, course S.W.; ascend.
- 79.92 The cor. of secs. 15, 16, 21, and 22.
Land, mountainous.
Soil, sandy loam and gravelly; 2nd and 3rd rate.
No timber.
Undergrowth, oak and sage brush and aspen saplings.
Good grass for grazing.
Mountainous land, or land covered with dense undergrowth, 79.92 chs.

N. 0° 02' W., bet. secs. 15 and 16.

Over mountainous land; through dense undergrowth and scattering timber; ascend.

- 25.00 Top of divide ridge, between Hill Creek Canon and canon on south, 350 ft. above sec.cor., bears E. and W.; descend.
- 40.00 Set a sandstone, 18x7x4 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on E. face; from which an aspen, 4 ins. diam., bears E., 15 lvs. dist.

Subdivision of T.18 S., R.19 E.-Continued.

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|-------|---|--|
| | Chains | marked $\frac{1}{2}$ S.15,B.T.
An aspén, 4 ins. diam., bears N.89°W., 25 lks.
dist., marked $\frac{1}{2}$ S.16,B.T. |
| 80.00 | Set a sandstone, 20x8x6 ins., 15 ins. in the ground, for
cor. of secs. 9, 10, 15, and 16, marked with 4 notches on
S. and 3. notches on E.edges; from which | An aspen, 4 ins. diam., bears N.30°E., 30 lks.
dist., marked T.18 S., R.19 E., S.10, B.T.
An aspen, 4 ins. diam., bears S.60°E., 11 lks.
dist., marked T.18 S., R.19 E., S.15, B.T.
An aspen, 4 ins. diam., bears S.10°W., 5 lks.
dist., marked T.18 S., R.19 E., S.16, B.T.
An aspen, 4 ins. diam., bears N.30°W., 30 lks.
dist., marked T.18 S., R.19 E., S.9, B.T. |
| | Land, mountainous . | |
| | Soil, sandy and gravelly ; 3rd rate. | |
| | Timber, scattering pine and aspen. | |
| | Undergrowth, oak and sage brush. | |
| | Good grass for grazing. | |
| | Mountainous land, or land covered with dense under-
growth, 80.00 chs. | |
| 40.00 | N.89° 58'E., on a random line bet. secs. 10 and 15.
Set temp. $\frac{1}{2}$ sec.cor. | |
| 80.04 | Intersect N. and S. line, 5 lks. N. of the cor. of secs.
10, 11, 14, and 15.
Thence I run | |
| | West, on a true line bet. secs. 10 and 15. | |
| | Over mountainous land; through dense undergrowth; des-
cend . | |
| 19.65 | Bottom of hollow, 100 ft. below sec.cor., course N.; as-
cend . | |
| 30.00 | Top of ridge, 100 ft. above hollow, bears N. and S.; des-
cend . | |
| 38.00 | Enter scattering timber, bears N. and S. | |

Subdivision of T.18 S., R.19 E.-Continued.

Chains

- 40.02 Set a sandstone, 18x12x6 ins., 12 ins. in the ground, for
sec.cor., marked $\frac{1}{2}$ on N.face; from which
An aspen, 5 ins. diam., bears N. 10° E., 30 lks.
dist., marked $\frac{1}{2}$ S.10,B.T.
An aspen, 5 ins. diam., bears S. 30° W., 30 lks.
dist., marked $\frac{1}{2}$ S.15,B.T.
- 69.00 Bottom of West Fork Canon, 500 ft. below ridge, course
N.; ascend .
- 80.04 The cor.of secs.9,10,15, and 16.
Land, mountainous.
Soil, sandy and gravelly loam; 2nd rate.
Timber, scattering pine and aspen.
Undergrowth, oak and sage brush.
Good grass for grazing.
Mountainous land, or land covered with dense under-
growth, 80.04 chs.
August 13, 1901: At the noon hour the sky is overcast
and solar observations are impossible.

N. $0^{\circ}02'$ W., bet.secs.9 and 10.

Over mountainous land, through dense undergrowth and
scattering timber; ascend .

- 40.00 Set a sandstone, 20x8x7 ins., 15 ins. in the ground, for
sec.cor., marked $\frac{1}{2}$ on W.face; and raise mound of
stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impractic-
able.
- 47.00 Top of ridge, 400 ft. above sec.cor., bears N. 15° E. and
S. 15° W.; descend .
- 71.50 Bottom of canon, 500 ft. below ridge, course N. 55° E.;
a corral bears S. 55° W. about 20.00 chs.dist.; ascend .
- 80.00 Set a sandstone, 18x9x9 ins., 12 ins. in the ground, for
cor.of secs.3,4,9, and 10, marked with 5 notches on S.
and 3 notches on E.edges; and raise a mound of stone,
2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable.

Subdivision of T. 18 S., R. 19 E., -Continued.

Chains	<p>Land, mountainous.</p> <p>Soil, sandy and gravelly loam; 2nd rate.</p> <p>Timber, scattering pine and aspen.</p> <p>Undergrowth, oak and sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.00 chs.</p>
40.00	<p>East, on a random line bet. secs. 3 and 10.</p> <p>Set temp. $\frac{1}{2}$ sec. cor.</p>
79.98	<p>Intersect N. and S. line, 7 lks. S. of the cor. of secs. 2, 3, 10, and 11.</p> <p>Thence I run</p> <p>S. 89° 57' W., on a true line bet. secs. 3 and 10.</p> <p>Over mountainous land; through dense undergrowth and scattering timber; descend.</p>
36.00	<p>Creek, 3 lks. wide, 4 ins. deep, in hollow, 300 ft. below sec. cor., course N.W.; ascend.</p>
39.99	<p>Set a sandstone, 16x7x7 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1$\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.</p>
52.50	<p>Top of ridge, 300 ft. above hollow, bears N.W. and S.E.; descend.</p>
70.50	<p>Creek, 4 lks. wide, 4 ins. deep, rapid current, in bottom of West Fork Canon, 400 ft. below ridge, course N. 10° W.; ascend.</p>
79.98	<p>The cor. of secs. 3, 4, 9, and 10.</p> <p>Land, mountainous.</p> <p>Soil, sandy loam and gravelly; 2nd and 3rd rate.</p> <p>Timber, scattering pine and aspen.</p> <p>Undergrowth, oak and sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 79.98 chs.</p>

Subdivision of T.18 S., R.19 E. -Continued.

Chains	N. $0^{\circ} 02' W.$, on a random line bet. secs. 3 and 4.
40.00	Set temp. $\frac{1}{2}$ sec.cor.
79.94	Intersect N.bdy.of Tp., at the cor.of secs. 3, 4, 33, and 34, heretofore described.
	Thence I run
	S. $0^{\circ} 02' E.$, on a true line bet. secs. 3 and 4.
	Over mountainous land; through dense undergrowth and scattering timber; ascend.
39.94	Set a sandstone, 14x10x6 ins., 9 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; from which
	An aspen, 8 ins. diam., bears S. $80^{\circ} E.$, 20 lks. dist., marked $\frac{1}{2}$ S. 3, B.T.
	An aspen, 8 ins. diam., bears N. $45^{\circ} W.$, 30 lks. dist., marked $\frac{1}{2}$ S. 4, B.T.
42.25	Top of ridge, 250 ft. above sec.cor., bears N. $55^{\circ} E.$ and S. $55^{\circ} W.$; descend.
64.50	Creek, 2 lks. wide, 2 ins. deep, in hollow, 150 ft. below ridge, course E.; ascend.
64.60	A spring bears West about 10.00 chs. dist.
79.94	The cor.of secs. 3, 4, 9, and 10.
	Land, mountainous.
	Soil, sandy and gravelly; 3rd rate.
	Timber, pine and aspen.
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 79.94 chs.

August 13, 1901.

August 14, 1901: At 7 h 2 m a.m., l.m.t., I set off $59^{\circ} 12' N.$, on the lat.arc; $14^{\circ} 30' W.$, on the decl.arc; and determine a true meridian, with the solar, at the cor. of secs. 4, 5, 32, and 33., $\frac{1}{2}$ S.bdy.of Tp., heretofore described.

Thence I run

Subdivision of T.18 S., R.19 E.-Continued.

Chains	N. $0^{\circ} 05' W.$, bet. secs. 32 and 33. Over mountainous land; through scattering timber and scattering undergrowth; descend.
25.50	Bottom of canon, 300 ft. below sec. cor., course S. $70^{\circ} W.$; ascend.
40.00	Set a sandstone, 18x7x7 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
59.00	Top of ridge, 400 ft. above canon, bears N. $20^{\circ} E.$ and S.W.; descend.
80.00	Set a sandstone, 20x10x10 ins., 15 ins. in the ground, for cor. of secs. 28, 29, 32, and 33, marked with 1 notch on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, sandy and gravelly and rocky; 3rd and 4th rate.
	Timber, scattering pine, cedar and aspen.
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	Mountainous land, 80.00 chs.
	East, on a random line bet. secs. 28 and 33.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
79.96	Intersect N. and S. line, 7 lks. S. of the cor. of secs. 27, 28, 33, and 34.
	Thence I run
	S. $89^{\circ} 57' W.$, on a true line bet. secs. 28 and 33.
	Over mountainous land; through dense undergrowth and scattering timber; ascend.
5.00	Top of ridge, 50 ft. above sec. cor., bears N. $40^{\circ} E.$ and S. $40^{\circ} W.$; descend.
39.98	Set a sandstone, 18x8x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of

Subdivision of T.18 S., R.19 E.-Continued.

Chains	stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
45.30	Bottom of hollow, 300 ft. below ridge, course S. 20° W.; ascend.
72.50	Top of ridge, 400 ft. above hollow, bears N. 20° E. and S. 20° W.; descend.
79.96	The cor. of secs. 28, 29, 32, and 33. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, pine and aspen and cedar. Undergrowth, oak, sage, and deer brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.96 chs.

	N. $0^{\circ} 03'$ W., bet. secs. 28 and 29. Over mountainous land; through dense undergrowth and scattering timber; descend.
20.00	Leave dense and enter scattering undergrowth, bears E. and W.
40.00	Bottom of canon, 350 ft. below sec. cor., course S. 30° W.; Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Ascend abruptly.
80.00	Set a sandstone, 24x8x8 ins., 18 ins. in the ground, for cor. of secs. 20, 21, 28, and 29, marked with 2 notches on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, scattering pine, cedar and aspen. Undergrowth, oak, sage and deer brush. Good grass for grazing.

Subdivision of T.18 S., R.19 E. -Continued.

Chains	Mountainous land, or land covered with dense under-growth, 80.00 chs. August 14, 1901: At this cor. I set off $14^{\circ} 25' N.$, on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ} 14' N.$
	N. $89^{\circ} 57' E.$, on a random line bet. secs. 21 and 28.
40.00	Set temp. $\frac{1}{4}$. sec. cor.
79.88	Intersect N. and S. line, at the cor. of secs. 21, 22, 27, and 28. Thence I run S. $89^{\circ} 57' W.$, on a true line bet. secs. 21 and 28. Over mountainous land; through scattering timber and dense undergrowth; descend.
1.10	Bottom of hollow, 10 ft. below sec. cor., course S. $30^{\circ} W.$; ascend.
31.17	Top of ridge, 500 ft. above hollow, bears N. and S. $25^{\circ} W.$; descend.
39.94	Set a sandstone, 18x12x5 ins., 12. ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on N. face; from which A sandstone boulder, 10x8x5 ft. above ground, bears S. $60^{\circ} W.$, 25 lks. dist.; marked + B.O. Raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
55.00	Bottom of hollow, 500 ft. below ridge, course S. $30^{\circ} W.$; ascend.
79.88	The cor. of secs. 20, 21, 28, and 29. Land, mountainous. Soil, sandy and gravelly; 3rd mate. Timber, cedar and pinion pine. Undergrowth, sage and oak brush. Good grass for grazing. Mountainous land, or land covered with dense under-growth, 79.88 chs.

Subdivision of T.18 S., R.19 E.-Continued.

Chains	N.0°03'W., bet. secs. 20 and 21. Over mountainous land; through scattering timber and scattering undergrowth; ascend.
14.00	Top of ridge, 300 ft. above sec. cor., bears E. and W.; descend.
40.00	Set a sandstone, 18x8x6 ins., 12 ins. in the ground, for sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable,
42.50	Bottom of hollow, 450 ft. below ridge, course N.50°W.; ascend.
56.00	Top of spur, 200 ft. above hollow, bears E. and W.; descend.
80.00	Bottom of hollow, 500 ft. below below spur, course W. Set a sandstone, 24x12x5. ins., 18 ins. in the ground, for cor. of secs. 16, 17, 20, and 21, marked with 3 notches on S. and 4 notches on E. edges; from which An aspen, 4 ins. diam., bears N.45°E., 5 lks. dist., marked T.18 S., R.19 E., S.16, B.T. An aspen, 12 ins. diam., bears S.73°E., 50 lks. dist., marked T.18 S., R.19 E., S.21, B.T. An aspen, 4 ins. diam., bears S.44°W., 20 lks. dist., marked T.18 S., R.19 E., S.20, B.T. A pine, 7 ins. diam., bears N.77°W., 70 lks. dist., marked T.18 S., R.19 E., S.17, B.T. Land, mountainous.
	Soil, sandy and gravelly; 3rd rate.
	Timber, pine and aspen.
	Undergrowth, sage and oak brush.
	Good grass for grazing.
	Mountainous land, 80.00 chs.
	<hr/> N.89°57'E., on a random line bet. secs. 16 and 21.
40.00	Set temp. $\frac{1}{2}$ sec. cor.

Subdivision of T.18 S., R.19 E.-Continued.

Chains

79.96 Intersect N. and S. line, 7 lks. S. of the cor. of secs. 15, 16, 21, and 22.
Thence I run
 $S.89^{\circ}54'W.$, on a true line bet. secs. 16 and 21.
Over mountainous land; through scattering timber and scattering undergrowth; descend.

59.98 Set a sandstone, 16x10x4 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

65.00 Creek, 3 lks. wide, 2 ins. deep, in bottom of hollow, 500 ft. below sec. cor., course N. $40^{\circ}E.$; ascend.

70.00 Top of spur, 50 ft. above hollow, bears N. and S.; descend.

75.00 Foot of descent, 60 ft. below spur, bears W. and N. $30^{\circ}E.$
Enter bottom of hollow last crossed (no water at this point) thence along bottom of hollow.

79.96 The cor. of secs. 16, 17, 20, and 21.
Land, mountainous.
Soil, gravelly loam and rocky; 2nd and 4th rate.
Timber, pine and aspen.
Undergrowth, oak and sage brush.
Good grass for grazing.
Mountainous land, 79.96 chs.

August 14, 1901.

August 15, 1901: At 7 h 2 m a.m., l.m.t., I set off $39^{\circ}15'N.$, on the lat. arc; $14^{\circ}12'W.$, on the decl. arc; and determine a true meridian, with the solar, at the cor. of secs. 16, 17, 20, and 21.

Thence I run
 $N.0^{\circ}05'W.$, bet. secs. 16 and 17.
Over mountainous land; through scattering timber and scattering undergrowth; ascend abruptly.

Subdivision of T.18 S., R.18 E. -Continued.

Chains 4.00	Foot of perpendicular ledge, 20 ft. high, bears E. and W.; thence over series of ledges from 10 ft. to 30 ft. high.
27.50	Leave ledges, bears E. and W.
40.00	Set a sandstone, 24x12x8 ins., 18 ins. in the ground, for sec.cor., marked $\frac{1}{2}$ on W. face; from which A mahogany, 8 ins. diam., bears N.75° E., 70 lks. dist., marked $\frac{1}{2}$ S.16, B.T. A mahogany, 8 ins. diam., bears S.60° W., 40 lks. dist., marked $\frac{1}{2}$ S.17, B.T.
60.25	Top of ridge, 800 ft. above sec.cor., bears N.E. and W.; descend .
80.00	Set a sandstone, 18x8x8 ins., 12 ins. in the ground, for cor.of secs. 8, 9, 16, and 17, marked with 4 notches on S. and 4 notches on E.edges; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy and gravelly and rocky; 3rd and 4th rate. Timber, pine and aspen. Undergrowth, oak and sage brush and mahogany. Good grass for grazing. Mountainous land, 80.00 chs.

N.89° 54' E., on a random line bet.secs. 9 and 16.
40.00 Set temp. $\frac{1}{2}$ sec.cor.
80.20 Intersect N. and S. line, 10 lks.S. of the cor.of secs. 9, 10, 15, and 16.
Thence 1 run
S.89° 50' W., on a true line bet.secs. 9 and 16.
Over mountainous land, through scattering timber and scattering undergrowth; ascend ..
18.25 Top of ridge, 500 ft. above sec.cor., bears N. and S.; descend .

Subdivision of T. 18 S., R. 19 E. -Continued.

Chains	
35.00	Bottom of hollow, 300 ft. below ridge, course N.30°E.; ascend .
40.10	Set a sandstone, 24x14x12 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
52.00	Top of ridge, 450 ft. above hollow, bears N.E. and S.W.; descend .
80.20	The cor.of secs.8,9,16, and 17. Land, mountainous. Soil, sandy and gravelly and rocky; 3rd and 4th rate. Timber, pine and aspen. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, 80.20 chs.

N.0°03'W., bet. secs.8 and 9.

Over mountainous land; through scattering timber and scattering undergrowth; descend .

5.00 Bottom of hollow, 20 ft. below sec.cor., course N.E.; ascend .

27.00 Top of ridge, 300 ft. above hollow, bears N.E. and S.W.; descend .

33.00 Bottom of hollow, 350 ft. below ridge, course N.E.; ascend .

40.00 Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.

48.00 Top of ridge, 300 ft. above hollow, bears N.70°E. and S.70°W.; descend .

80.00 Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for cor.of secs.4,5,8, and 9, marked with 5 notches on S. and 4 notches on E.edges; and raise a mound of stone,

Subdivision of T. 18 S., R. 19 E.—Continued.

- Chains 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 Land, mountainous.
 Soil, gravelly loam and rocky; 2nd and 4th rate.
 Timber, pine and aspen.
 Undergrowth, oak and sage brush.
 Good grass for grazing.
 Mountainous land, 80.00 chs.
 August 15, 1901: At this cor. I set off $14^{\circ}07'N.$, on the decl. arc; and at 0 h 3 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $59^{\circ}16'N.$
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- N. $89^{\circ}50'E.$, on a random line bet. secs. 4 and 9.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.08 Intersect N. and S. line, 22 lks. N. of the cor. of secs. 3, 4, 9, and 10.
 Thence I run
 S. $89^{\circ}59'W.$, on a true line bet. secs. 4 and 9.
 Over mountainous land; through scattering timber and scattering undergrowth; ascend.
 40.04 Set a sandstone, $16 \times 10 \times 6$ ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which
 A pine, 20 ins. diam., bears N. $40^{\circ}E.$, 39 lks.
 dist., marked $\frac{1}{4}$ S. 4, B.T.
 A pine, 30 ins. diam., bears S. $35^{\circ}W.$, 60 lks.
 dist., marked $\frac{1}{4}$ S. 9, B.T.
 52.50 Top of ridge, 300 ft. above sec. cor., bears N. $60^{\circ}E.$ and S.W.; descend.
 80.08 The cor. of secs. 4, 5, 8, and 9.
 Land, mountainous.
 Soil, sandy and gravelly loam and rocky; 2nd and 4th rate.
 Timber, pine and aspen.
 Undergrowth, oak and sage brush.
 Good grass for grazing.
 Mountainous land, 80.08 chs.

Subdivision of T.18 S., R.19 E.-Continued.

Chains	
	N. $60^{\circ}03'W.$, on a random line bet. secs. 4 and 5.
40.00	Set temp. \pm sec. cor.
79.98	Intersect N.bdy. of Tp., at the cor. of secs. 4, 5, 32, and 33, heretofore described.
	Thence I run
	S. $00^{\circ}03'E.$, on a true line bet. secs. 4 and 5.
	Over mountainous land; through scattering timber and scattering undergrowth; ascend.
10:00	Top of ridge, 200 ft. above sec. cor., bears N. $50^{\circ}E.$ and S. $50^{\circ}W.$; descend.
39.98	Set a sandstone, 20x16x4 ins., 15 ins. in the ground, for \pm sec. cor., marked \pm on W. face; from which
	An aspen, 8 ins. diam., bears N. $60^{\circ}E.$, 75 lks. dist., marked \pm S.4, B.T.
	An aspen, 8 ins. diam., bears S. $80^{\circ}W.$, 30 lks. dist., marked \pm S.5, B.T.
52.00	Bottom of hollow, 275 ft. below ridge, course N. $35^{\circ}E.$; ascend.
79.98	The cor. of secs. 4, 5, 8, and 9.
	Land, mountainous.
	Soil, sandy and gravelly; 3rd rate.
	Timber, pine and aspen.
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	Mountainous land, 79.98 chs.

August 15, 1901.

August 16, 1901: At 8 h 0 m a.m., l.m.t., I set off 39° 12' N., on the lat. arc; 13° 52' N., on the decl. arc; and determine a true meridian, with the solar, at the cor. of secs. 5, 6, 31, and 32, on S.bdy. of Tp., heretofore described.

Thence I run

N. $00^{\circ}03'W.$, bet. secs. 31 and 32.

Over high mountains; through scattering timber and

Subdivision of T. 18 S., R. 19 E. -Continued.

- Chains scattering undergrowth; descend abruptly.
- 10.00 Bottom of canon, 200 ft. below sec. cor., course S. 80° W.; ascend.
- 40.00 Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 80.00 Set a sandstone, 18x14x4 ins., 12 ins. in the ground, for cor. of secs. 29, 30, 31, and 32, marked with 1 notch on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, gravelly and rocky; 3rd and 4th rate.

Timber, pine, aspen and cedar.

Undergrowth, oak and sage brush.

Good grass for grazing.

Mountainous land, 80.00 chs.

East, on a random line bet. secs. 29 and 32.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.98 Intersect N. and S. line, at the cor. of secs. 28, 29, 32, and 33.

Thence I run

West, on a true line bet. secs. 29 and 32.

Over mountainous land; through scattering timber and scattering undergrowth; descend.

24.00 Bottom of canon, 500 ft. below sec. cor., course S. 30° W.; ascend.

39.99 Set a sandstone, 20x14x10 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

64.00 Top of ridge, 600 ft. above canon, bears N. and S.; descend.

79.98 The cor. of secs. 29, 30, 31, and 32.

Subdivision of T. 18 S., R. 19 E. -Continued.

Chains	<p>Land, mountainous.</p> <p>Soil, sandy and gravelly and rocky; 3rd and 4th rate.</p> <p>Timber, pine and aspen.</p> <p>Undergrowth, oak and sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, 79.98 chs.</p> <p>August 16, 1901: At the noon hour the sky is overcast and solar observations are impossible.</p>
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	<p>West, on a random line bet. secs. 30 and 31.</p> <p>40.00 Set temp. $\frac{1}{4}$ sec. cor.</p> <p>79.04 Intersect W. bdy. of Tp., 2 lks. N. of the cor. of secs. 25, 30, 31, and 36, heretofore described.</p> <p>Thence I run</p> <p>N. $89^{\circ} 59' E.$, on a true line bet. secs. 30 and 31.</p> <p>Over mountainous land; through scattering timber and scattering undergrowth; descend.</p> <p>10.60 Enter heavy timber, bears N. $10^{\circ} E.$ and S. $10^{\circ} W.$.</p> <p>32.00 Leave heavy and enter scattering timber, bears N. and S.</p> <p>59.04 Set a sandstone, 16x14x10 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.</p> <p>65.00 Bottom of hollow, 500 ft. below sec. cor., and 250 ft. below $\frac{1}{4}$ sec. cor., course S. $20^{\circ} W.$; ascend.</p> <p>79.04 The cor. of secs. 29, 30, 31, and 32.</p> <p>Land, mountainous.</p> <p>Soil, gravelly and rocky; 3rd and 4th rate.</p> <p>Timber, pine, cedar and aspen.</p> <p>Undergrowth, oak, sage and deer brush.</p> <p>Good grass for grazing.</p> <p>Mountainous or heavily timbered land, 79.04 chs.</p>
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N. $0^{\circ} 03' W.$, bet. secs. 29 and 30.

Division of T. 18 S., R. 19 E.—Continued.

- Chalky Over mountainous land; through scattering timber and
scattering undergrowth; ascend .
- 23.64 Top of ridge, 350 ft. above sec.cor., bears N.75°E. and
S.75°W.; enter heavy timber, bears with ridge ;descend.
- 24.50 Leave heavy and enter scattering timber, bears E. and
W.
- 40.00 Set a sandstone, 20x10x10 ins., 15 ins. in the ground,
for & sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound
of stone, 2 ft.; base, 1 $\frac{1}{2}$ ft. high, W.of cor.Pits impracticable.
- 51.10 Bottom of hollow, 500 ft. below ridge, course N.85°W.;
ascend .
- 60.60 Set a sandstone, 20x10x9 ins., 15 ins. in the ground, for
cor.of secs. 19, 20, 28, and 30, marked with 2 notches on
S. and 5 notches on E.edges; and raise a mound of stone,
2 ft. base, 1 $\frac{1}{2}$ ft. high, W.of cor.Pits impracticable.
Land, mountainous .
Soil, gravelly and rocky; 3rd and 4th rate.
Timber, pine and aspen.
Undergrowth, oak, sage and deer brush.
Good grass for grazing.
Mountainous or heavily timbered land, 80.00 chs.

West, on a random line bet.secs. 20 and 29.

- 40.00 Set temp.& sec.cor.
- 70.90 Intersect N.and S.line, 5 lks.N., of the cor.of secs.
20, 21, 28, and 29.
Thence I run
N.85°E.7°W., on a true line bet.secs. 20 and 29.
Over mountainous land, through dense undergrowth and
scattering timber; ascend .
- 8.10 Top of ridge, 100 ft. above sec.cor., bears N.E. and S.
W.; enter heavy timber and leave dense undergrowth,
bears with ridge ;descend .
- 33.60 Bottom of hollow, 400 ft. below ridge, course N.10°W.;

Subdivision of T.18 S., R.19 E.-Continued.

- | | |
|--------|--|
| Chains | leave heavy timber and enter scattering timber and scattering undergrowth,bears with hollow ;ascend . |
| 39.95 | Set a sandstone,20x10x5 ins.,15 ins.in the ground,for $\frac{1}{2}$ sec.cor.,marked $\frac{1}{2}$ on N.face;and raise a mound of stone,2 ft.base,1 $\frac{1}{2}$ ft.high,N.of cor.Pits impracticable. |
| 60.25 | Top of ridge,400 ft.above hollow,bears N.8° W.and S. 40° E.;descend . |
| 79.90 | The cor.of secs.19,20,29, and 30.
Land,mountainous.
Soil,gravelly and rocky;3rd and 4th rate.
Timber,pine ,aspen, and cedar.
Undergrowth,oak,sage and deer brush.
Good grass for grazing.
Mountainous or heavily timbered land,or land covered with dense undergrowth,79.90 chs. |

August 16,1901.

August 17,1901:At 7 h 2 m a.m.,l.m.t.,I set off 39° 14' N.,on the lat.arc;13° 34' W.,on the decl.arc;and determine a true meridian,with the solar,at the cor.of secs.19,20,29, and 30.

Thence I run

S.89° 59'W.,on a random line bet.secs.19 and 30.

40.00 Set temp. $\frac{1}{2}$ sec.cor.

79.26 Intersect W.bdy.of Tp.,7.lks.N.of the cor.of secs. 19,24, 25, and 30,heretofore described.

Thence I run

N.89° 56'E.,on a true line bet.secs.19 and 30.

Over mountainous land;through scattering timber and dense undergrowth;ascend gradually along south side of mountain.

39.26 Set a sandstone,18x8x4 ins.,12 ins.in the ground,for $\frac{1}{2}$ sec.cor.,marked $\frac{1}{2}$ on N.face;and raise a mound of stone,2 ft.base,1 $\frac{1}{2}$ ft.high,N.of cor.Pits impracticable.

Subdivision of T. 18 S., R. 19 E. -Continued.

Chains

79.26 The cor. of secs. 19, 20, 29, and 30.

Land, mountainous.

Soil, gravelly and rocky; 3rd and 4th rate.

Timber, pine and aspen.

Undergrowth, oak, sage and deer brush.

Good grass for grazing.

Mountainous land, 79.26 chs.

N. 0° 03' W., bet. secs. 19 and 20.

Over mountainous land, through scattering timber and scattering undergrowth; ascend.

16.00 Top of ridge, 200 ft. above sec. cor., bears E. and W.; descend.

20.00 Enter dense aspen saplings, bears E. and W.

32.00 Leave aspen saplings, bears E. and W.

40.00 Set a sandstone, 20x8x4 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

59.60 Bottom of canon, 500 ft. below ridge, course N. 85° W.; ascend.

80.00 Set a sandstone, 20x7x5 ins., 15 ins. in the ground, for cor. of secs. 17, 18, 19, and 20, marked with 3 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, gravelly and rocky; 3rd and 4th rate.

Timber, pine and aspen.

Undergrowth, oak, sage and deer brush.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth, 80.00 chs.

Subdivision of T. 18 S., R. 19 E.-Continued.

Chains	S. $89^{\circ} 58' E.$, on a random line bet. secs. 17 and 20.
40.00	Set temp. \pm sec.cor.
79.84	Intersect N. and S.line, 12 lks.S. of the cor.of secs. 16, 17, 20, and 21. Thence I run S. $89^{\circ} 57' W.$, on a true line bet.secs. 17 and 20. Over mountainous land; through dense undergrowth and scattering timber; along bottom of hollow, course E.
2.50	Leave bottom of hollow, course E.; ascend.
28.00	Top of ridge, 400 ft. above hollow, bears N. $10^{\circ} E.$ and S. $10^{\circ} W.$; leave dense undergrowth and enter scattering undergrowth; descend.
39.92	Set a sandstone, 14x12x8 ins., 9 ins. in the ground, for \pm sec.cor., marked \pm on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
57.50	Bottom of hollow, 300 ft. below ridge, course S. $30^{\circ} W.$; ascend.
79.84	The cor.of secs. 17, 18, 19, and 20. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, pine and aspen. Undergrowth, oak, sage and deer brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.84 chs. August 17, 1801: At this cor. I set off $13^{\circ} 29' N.$, on the decl.arc; and at 0 h 3 m p.m., i.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ} 15' N.$
40.00	S. $89^{\circ} 56' W.$, on a random line bet. secs. 18 and 19.
79.34	Set temp. \pm sec.cor.
	Intersect W.bdy.of Tp., 12 lks.S. of the cor.of secs. 13, 18, 19, and 24, heretofore described. Thence I run

Subdivision of T. 18. S., R. 19. E.-Continued.

Chains	V S. 89° 59' E., on a true line bet. secs. 18 and 19. Over mountainous land; through scattering timber and scattering undergrowth; descend.
24.25	Bottom of hollow, 200 ft. below sec. cor., course S.W.; enter dense undergrowth, bears with hollow; ascend.
39.34	Set a sandstone, 18x9x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; from which an aspen, 6 ins. diam., bears N. 7° E., 18 lks. dist., marked $\frac{1}{2}$ S. 18, B.T. An aspen, 9 ins. diam., bears S. 20° E., 54 lks. dist., marked $\frac{1}{2}$ S. 19, B.T.
57.10	Top of ridge, 400 ft. above hollow, bears N. 60° E. and S. 60° W.; descend.
79.34	The cor. of secs. 17, 18, 19, and 20. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, pine and aspen. Undergrowth, oak, sage and deer brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.34 chs.

N. 0° 03' W., bet. secs. 17 and 18.

Over mountainous land; through dense undergrowth and scattering timber; ascend.

14.00 Top of ridge, 200 ft. above sec. cor., bears N. 60° E. and S. 60° W.; descend.

40.00 Set a sandstone, 18x7x4 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

46.50 Bottom of hollow, 450 ft. below ridge, course S. 65° W.; ascend.

60.00 Top of ridge, 250 ft. above hollow, bears N. 70° E. and S. 70° W.; descend.

Subdivision of T.18 S., R.18 E.-Continued.

Chains

80.00 Set a sandstone, 16x9x6 ins., 12 ins. in the ground, for cor. of secs. 7, 8, 17, and 18, marked with 4 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

Land, mountainous.

Soil, sandy and gravelly and rocky; 3rd and 4th rate.

Timber, pine and aspen.

Undergrowth, sage, oak and deer brush.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth, 80.00 chs.

August 17, 1901.

August 19, 1901: At 7 h 0 m a .m., l.m.t., I set off $39^{\circ} 16' N.$, on the lat.arc; $12^{\circ} 55' W.$, on the decl.arc; and determine a true meridian, with the solar, at the cor. of secs. 7, 8, 17, and 18.

Thence I run

$N.89^{\circ} 57' E.$, on a random line bet. secs. 8 and 17.

40.00 Set temp. \pm sec.cor.

79.96 Intersect N. and S. line, at the cor. of secs. 8, 9, 16, and 17.

Thence I run

$S.89^{\circ} 57' W.$, on a true line bet. secs. 8 and 17.

Over mountainous land; through dense undergrowth; descend.

6.50 Bottom of hollow, 50 ft. below sec.cor., course N.E.; ascend.

39.98 Set a sandstone, 20x9x4 ins., 15 ins. in the ground, for a sec.cor., marked \pm on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

43.50 Top of divide ridge between West Fork Canon and canon

Subdivision of T.18 S., R.19 E.-Continued.

Chains on west, 600 ft. above hollow, bears N.W. and S.E.; enter scattering timber, bears with ridge; descend .

47.00 Bottom of hollow, 50 ft. below ridge, course S.38°W.; ascend .

54.00 Top of ridge, 40 ft. above hollow, bears N.E. and S.W.; descend abruptly .

70.00 Top of perpendicular ledge, 50 ft. high, bears N. and S.

79.96 The cor. of secs., 7, 8, 17, and 18.
Land, mountainous.
Soil, gravelly and rocky; 3rd and 4th rate.
Timber, pine and aspen.
Undergrowth, oak and sage and deer brush.
Good grass for grazing.
Mountainous land, or land covered with dense undergrowth, 79.96 chs .

N.89°59'W., on a random line bet. secs. 7 and 18.

40.00 Set temp. $\frac{1}{4}$ sec.cor.

79.46 Intersect W.bdy. of Tp., 7 lks. N. of the cor. of secs. 7, 12, 13, and 18, heretofore described.

Thence 1 run

N.89°58'E., on a true line bet. secs. 7 and 18.

Over mountainous land; through scattering timber and scattering undergrowth; descend .

39.46 Set a sandstone, 18x9x9 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

55.50 Bottom of hollow, 500 ft. below sec.cor., course S.60°W.; ascend .

79.46 The cor. of secs. 7, 8, 17, and 18.

Land, mountainous.

Soil, sandy and gravelly and rocky; 3rd and 4th rate.

Timber, pine and aspen.

Undergrowth, oak and sage brush and deer brush.

Subdivision of T. 18 S., R. 19 E. -Continued.

Chains	Good grass for grazing. Mountainous land, 79.46 chs.
	N. 0° 05' W., bet. secs. 7 and 8. Over mountainous land; through dense undergrowth and scattering timber; descend.
10.00	Bottom of hollow, 200 ft. below sec. cor., course S. 60° W.; ascend.
40.00	Set a sandstone, 18x9x5 ins., 12 ins. in the ground, for sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
53.00	Top of ridge, 400 ft. above hollow, bears N. 60° E. and S. 60° W.; descend.
64.50	Bottom of hollow, 300 ft. below ridge, course N. 75° W.; ascend.
80.00	Set a sandstone, 18x9x6 ins., 12 ins. in the ground, for cor. of secs. 5, 6, 7, and 8, marked with 5 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy and gravelly and rocky; 3rd and 4th rate. Timber, pine and aspen. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	August 19, 1901: At the noon hour the sky is overcast and solar observations are impossible.
40.00	N. 89° 57' E., on a random line bet. secs. 5 and 8. Set temp. $\frac{1}{2}$ set. cor.
80.00	Intersect N. and S. line, 5 lks. S. of the cor. of secs. 4, 5, 8, and 9.

Subdivision of T. 18 S., R. 19 E., -Continued.

Chains	Thence I run S.89° 55' W., on a true line bet. secs. 5 and 8. Over mountainous land; through scattering undergrowth and scattering timber; descend .
30.00	Bottom of hollow, 350 ft. below sec.cor., course N.25° E. Ascend .
40.00	Set a sandstone, 18x5x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
67.00	Top of divide ridge between West Fork Canon and canon on west, 450 ft. above hollow, bears N. and S.; descend .
80.00	The cor.of secs. 5, 6, 7, and 8. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, pine and aspen. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, 80.00 chs.
	S.89° 58' W., on a random line bet. secs. 6 and 7.
40.00	Set temp. $\frac{1}{2}$ sec.cor.
79.52	Intersect ". bdy. of Tp., at the cor.of secs. 1, 6, 7, and 12., heretofore described. Thence I run . N.89° 58' E., on a true line bet. secs. 6 and 7. Over mountainous land; through scattering timber and scattering undergrowth; descend .
39.52	Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stome, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
50.00	Bottom of hollow, 275 ft. below sec.cor., course S.50° E. Ascend .
79.52	The cor.of secs. 5, 6, 7, and 8. Land, mountainous.

Subdivision of T.18 S., R.19 E.-Continued.

Chains	<p>Soil, gravelly and rocky; 3rd and 4th rate.</p> <p>Timber, pine and aspen.</p> <p>Undergrowth, oak and sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, 79.52 chs.</p>
	<hr/> <p>N.0°03'W., on a random line bet. secs. 5 and 6.</p>
40.00	<p>Set temp. $\frac{1}{2}$ sec.cor.</p>
79.92	<p>Intersect N.bdy. of Tp., 5 lks.E. of the cor.of secs. 5, 6, 31, and 32, heretofore described.</p> <p>Thence I run</p> <p>S.0°05'E., on a true line bet. secs. 5 and 6.</p> <p>Over mountainous land; through scattering timber and dense undergrowth; descend .</p>
20.00	<p>Bottom of hollow, 200 ft. below sec.cor., course N.W.;</p> <p>ascend .</p>
32.00	<p>Top of divide ridge between West Fork Canon and canon on West, 350 ft. above hollow, bears N.W. and S.E.; leave dense undergrowth and enter scattering undergrowth, bears with ridge ; descend abruptly .</p>
39.92	<p>Set a sandstone, 14x12x10 ins., 9 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{4}$ on W.face; from which</p> <p>A pine, 6 ins.diam., bears N.80°E., 40 lks.</p> <p>dist., marked $\frac{1}{4}$ S.5,B.T.</p> <p>A pine, 12 ins.diam., bears S.50°W., 54 lks.</p> <p>dist., marked $\frac{1}{4}$ S.6,B.T.</p>
79.92	<p>The cor.of secs. 5, 6, 7, and 8.</p> <p>Land, mountainous .</p> <p>Soil, gravelly and sandy loam and rocky; 2nd and 4th rate.</p> <p>Timber, pine and aspen.</p> <p>Undergrowth, oak, aspen saplings, and deer brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 79.92 chs.</p>

August 19, 1901.

Subdivision of T. 18 S., R. 19 E. -Continued.

Chains	General Description.
	This township is very rough steep and rocky in the S.W.corner; all south and west of the divide which runs through the township from the S.E.corner to the N.E.corner; and the part of the township lying North and east of the divide is mountainous but it is more rolling and not so rugged.
	The township is well watered by Hill Creek, West Fork Creek and numerous other small streams and springs.
	The soil of the southwestern part of the township is generally gravelly and rocky; 3rd and 4th rate; and the remainder of the township is generally sandy and gravelly loam; 2nd rate.
	The township is well timbered with pine and aspen and some cedar.
	There is no mineral in the township.
	The entire township is covered with an abundant growth of rich and nutritious grasses; and is very well adapted for grazing purposes.
	There is a cabin in sec. 36, claimed by Lewis J. Rodner.
	There is a cabin in sec. 26, claimed by Simons , first name unknown. Not seen from line.

Andrew J. Stewart Jr.
U.S. Deputy Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by
 United States Deputy Surveyor, to assist in running, measuring, and
 marking the lines and corners described in the foregoing field notes of the survey of

showing the respective capacities in which they acted:

....., Chainman.

....., Chainman.

....., Moundman.

....., Moundman.

....., Axman.

....., Axman.

....., Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted

....., United States Deputy Surveyor, in surveying all
 those parts or portions of the

....., meridian, of which are represented
 in the foregoing field notes as having been surveyed by him and under his direction; and that said survey
 has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the
 corner monuments established, according to the instructions furnished by the United States Surveyor
 General for

....., Chainman.

....., Chainman.

....., Moundman.

....., Moundman.

....., Axman.

....., Axman.

....., Flagman.

Subscribed and sworn to before me this

day of, 189 }



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____, United States Surveyor General for _____, bearing date of the _____ day of _____, 189_____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____ of the _____ meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189 _____ }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah March 19, 1903, 100

The foregoing field notes of the survey of the subdivision of lines of
Township 18 South Range 19 E. East of the Salt
Lake Base Meridian, Utah.

The foregoing field notes of the survey of The Subdivisional Survey of
Township 18 South Range 19 East of the Salt
Lake Branch Meridian Celah

executed by Archibald Stewart
under his contract No. 263, dated April 19, 1901, 189, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the
surveys they describe, are hereby approved. S. M. P. W.

Edward Alexander
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

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Exhibit A

Filed June 30, 1907. EOB

4-679.

BOOK A-291

99

FIELD NOTES

A. S. R.

OF THE SURVEY OF THE

GREEN RIVER GUIDE MERIDIAN

through

Townships No. 17 South

Between Ranges Nos. 20 and 21 East

Of the SALT LAKE BASE AND Meridian,

in the STATE OF UTAH

AS SURVEYED BY

Andrew J. Stewart Jr., United States Deputy Surveyor,

Under his Contract No. 243, dated April 12, 1901, *xpgx*

Survey commenced August 20, 1901. *xpgx*

Survey completed August 21, 1901. *xpgx*

6-151

High 6,000.00'

NAMES AND DUTIES OF ASSISTANTS.

William Matson	Chainman
Harvey M. Cluff	Chainman
William E Andrews	Moundman
Arthur Wilde	Moundman
Omero Marriotti	Axman
Victor D. Cram	Flagman

For preliminary affidavit to land "C" of 20 S 120 E

BOOK A-251

INDEX DIAGRAM.

Township _____, Range _____

6	5	4	3	2	1
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18	17	16	15	14	13
19	20	21	22	23	24
20	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

We, and

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., *Chainman.*

....., *Chainman.*

Subscribed and sworn to before me this }
day of , 189 }



We, and

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., *Moundman.*

....., *Moundman.*

Subscribed and sworn to before me this }
day of , 189 }



We, and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., *Axman.*

....., *Axman.*

Subscribed and sworn to before me this }
day of , 189 }



I, , do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., *Flagman.*

Subscribed and sworn to before me this }
day of , 189 }



Green River Guide Meridian, through Tps. 17 S., bet. Ranges 20 and 21 East

Survey commence August 20, 1901, and executed with a W. and L.E. Gurley light mountain transit, No. 1, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, on May 29, 1901.

I examine the adjustments of the instrument, and correct the level and collimation errors, then, to test the solar apparatus by comparing its indications resulting from solar observations made during p.m. and a.m. hours, with a true meridian, established by Polaris observation, I proceed as follows:

At the cor. of Tps. 17 and 18 S., Rs. 20 and 21 E., heretofore described, latitude $39^{\circ} 17' N.$, longitude $109^{\circ} 41' W.$, I set off $39^{\circ} 17' N.$, on the lat. arc; $12^{\circ} 28' N.$, on the decl. arc; and at 4 h 2 m p.m., l.m.t., determine a true meridian, with the solar, and mark a point thereon on a stone, set firmly in the ground, 5.00 chs. N. of the cor.

At 9 h 32 m p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark a point in the line thus determined, on a wooden plug driven in the ground, 5.00 chs. N. of the cor.

August 20, 1901.

August 21, 1901: At 6 h 30 m a.m. l.m.t., I lay off the azimuth of Polaris $1^{\circ} 34.3'$ to the west, and mark the true meridian thus determined by cutting a small groove in the stone, already set 5.00 chs. N. of the cor.; on which the true meridian falls 0.33 ins. east of the true meridian determined with the solar.

At 7 h 2 m a.m., l.m.t., I set off $39^{\circ} 17' N.$, on the lat. arc;

Green River Guide Meridian, through Tps. 17 S., etc.-Continued.

Chains 12° 16' N., on the decl. arc; and mark a point in the true meridian determined with the solar, by a cross on the stone, already set 5.00 chs. N. of the cor.; this mark falls 0.29 ins. east of the true meridian established by Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for true meridians respectively about 0° 17" west and 0° 15" east of the true meridian established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 7 h 30 m a.m., is 15° 52.6' W., the angle thus determined reduced by the table page 100 of the Manual, gives the mean mag. decl. 15° 47' E.

From the cor. of Tps. 17 and 18 S., Rs. 20 and 21 E.;

I run

North, bet. secs. 31 and 36.

Over mountainous land; through dense undergrowth; in bottom of She Canon.

2.50 Leave bottom of canon, bears E. and W.; ascend abruptly over a series of ledges from 10 ft. to 50 ft. high.

Difference between measurements of 40.00 chs. by two sets of chainmen, is 8 lks.; position of middle point
By 1st set 39.96 chs.

By 2nd set 40.04 chs.; the mean of which is
40.00 Set a sandstone, 18x12x6 ins., 12 ins. in the ground, for

π sec. cor., marked π on W. face; from which

A cedar, 10 ins. diam., bears N. 13° E., 120 lks.

dist., marked π S. 31, B.T.

A pinon pine, 16 ins. diam., bears N. 30° W., 100 lks. dist., marked π S. 36, B.T.

Enter scattering timber, bears E. and W.

76.00 Top of ridge, 600 ft. above canon, bears E. and W.; descend.

Difference between measurements of 80.00 chs., by two

Green River Guide Meridian, through Tps. 17 S., etc.-Cont.

	Chains	sets. of chainmen, is 12 lks.; position of middle point By 1st set 79.94 chs. By 2nd set 80.06 chs.; the mean of which is
80.00		Set a sandstone, 24x18x6 ins., 18 ins. in the ground, for cor. of secs. 25, 30, 31, and 36, marked with 5 notches on N. and 1 notch on S. edges; and raise a mound or stone, 2 ft. base, $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
		Land, mountainous.
		Soil, sandy loam and rocky; 2nd. and 4th rate.
		Timber, pine and cedar.
		Undergrowth, oak and sage brush.
		Good grass for grazing.
		Mountainous land, or land covered with dense undergrowth, 80.00 chs.
<hr/>		
17.50		North, bet. secs. 25 and 30. Over mountainous land; through scattering undergrowth and scattering timber; descend abruptly over ledges; Bottom, or hollow, 400 ft. below sec. cor., course E.; ascend.
18.00		Enter heavy timber, bears E. and W.
30.00		Top of ridge, 200 ft. above hollow, bears E. and W.; descend.
		Difference between measurements of 40.00 chs. by two sets of chainmen, is 4 lks.; position of middle point By 1st set 39.98 chs. By 2nd set 40.02 chs.; the mean of which is
40.00		Set a sandstone, 16x16x6 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; from which A pine, 10 ins. diam., bears N. 75° E., 20 lks. dist., marked $\frac{1}{2}$ S. 30, B.T. A pine, 12 ins. diam., bears W., 25 lks. dist., marked $\frac{1}{2}$ S. 25, B.T.
47.25		Bottom of hollow, 350 ft. below ridge, course S.E.; as-

Green River Guide Meridian, through Tps. 17 S., etc. Cont.

Chains	ascend over ledges.
66.00	Top of ridge, 500 ft. above hollow, bears N. 70° W. and S. 70° E.; descend.
72.00	Bottom of hollow, 150 ft. below ridge, course E.; ascend. Difference between measurements of 80.00 chs., by two sets of chainmen, is 6 lks.; position of middle point By 1st set 79.97 chs. By 2nd set 80.03 chs.; the mean of which is
80.00	Set a sandstone, 25x12x8 ins., 19 ins. in the ground, for cor. of secs. 19, 24, 25, and 30, marked with 4 notches on N. and 2 notches on S. edges; from which A pine, 30 ins. diam., bears N. 80° E., 54 lks. dist., marked T. 17 S., R. 21 E., S. 19, B.T. A pinion pine, 9 ins. diam., bears S. 40° E., 44 lks. dist., marked T. 17 S., R. 21 E., S. 30, B.T. A red pine, 30 ins. diam., bears S. 70° W., 30 lks. dist., marked T. 17 S., R. 20 E., S. 25, B.T. A cedar, 8 ins. diam., bears N. 10° W., 48 lks. dist., marked T. 17 S., R. 20 E., S. 24, B.T. Land, mountainous. Soil, sandy and gravelly and rocky; 3rd and 4th rate. Timber, cedar, red pine, and pinion pine pine. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous or heavily timbered land, 80.00 chs.
20.00	North, bet. secs. 19 and 24. Over mountainous land; through heavy timber; ascend over ledges. Top of ascent, 450. ft. above sec. cor., bears E. and W.; leave timber and enter dense undergrowth, bears E. and W. Thence over level mesa. Difference between measurements of 40.00 chs., by two sets of chainmen, is 10 lks.; position of middle point

Green River Guide Meridian, through Tps. 17 S., etc. Continued.

Chains	By 1st set 39.95 chs. By 2nd set 40.05 chs.; the mean of which is
40.00	Set a sandstone, 18x10x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. or cor. Pits impracticable.
43.00	Leave mesa, bears N. 10° E. and S. 10° W.; descend.
50.00	Leave dense undergrowth and enter scattering timber, bears E. and W. Difference between measurements of 80.00 chs., by two sets of chainmen, is 20 lks.; position of middle point
	By 1st set 79.90 chs. By 2nd set 80.10 chs.; the mean of which is
80.00	Set a sandstone, 18x18x6 ins., 12 ins. in the ground, for cor. of secs. 13, 18, 19, and 24, marked with 3 notches on N. and 3 notches on S. edges; from which A pinion pine, 28 ins. diam., bears N. 50° E., 50 lks. dist., marked T. 17 S., R. 21 E., S. 18, B.T. A red pine, 6 ins. diam., bears S. 46° E., 140 lks. dist., marked T. 17 S., R. 21 E., S. 19, B.T. A cedar, 8 ins. diam., bears S. 50° W., 20 lks. dist., marked T. 17 S., R. 20 E., S. 24, B.T. A pinion pine, 20 ins. diam., bears N. 70° W., 15 lks. dist., marked T. 17 S., R. 20 E., S. 13, B.T. Land, mountainous and level mesa. Soil, sandy loam and rocky; 2nd and 4th rate. Timber, pine and cedar. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs. August 21, 1901: At this cor. I set off $12^{\circ} 11' N.$, on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ} 20' N.$

Green River Guide Meridian, through Tps. 17 S., etc. -Continued.

Chains	North, bet. secs. 13 and 18. Over mountainous land; through scattering timber and scattering undergrowth; descend along west side of ridge. Difference between measurements of 40.00 chs., by two sets of chainmen, is 2 lks.; position of middle point By 1st set 39.99 chs. By 2nd set 40.01 chs.; the mean of which is
40.00	Set a sandstone, 18x10x6 ins., 12 ins. in the ground, for cor., marked $\frac{1}{2}$ on W. face; from which A pine, 6 ins. diam., bears N. 80° E., 70 lks. dist., marked $\frac{1}{4}$ S. 18, B.T. An aspen, 6 ins. diam., bears N. 50° W., 60 lks. dist., marked $\frac{1}{4}$ S. 13, B.T.
78.00	Foot of descent, 800 ft. below sec. cor., bears E. and W. Enter bottom of East Willow Creek Canon. Enter dense undergrowth, bears E. and W. Difference between measurements of 80.00 chs., by two sets of chainmen, is 8 lks.; position of middle point By 1st set 79.96 chs. By 2nd set 80.04 chs.; the mean of which is
80.00	Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for cor. of secs. 7, 12, 13, and 18, marked with 2 notches on N. and 4 notches on S. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy loam and gravelly; 2nd and 3rd rate. Timber, pine, aspen, and cedar. Undergrowth, oak and sage brush and grease wood. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	North, bet. secs. 7 and 12.

Green River Guide Meridian, through Tps. 17 S., etc.-Continued.

Chains	Over level canon bottom, through dense greasewood.
8.00	East Willow Creek, 10 lks. wide, 6 ins. deep, rapid current, course W.
9.00	Leave canon bottom, bears E. and W.; ascend ledges.
10.00	Enter scattering timber and leave dense greasewood and enter scattering sage brush, bears E. and W. Difference between measurements of 40.00 chs., by two sets of chainmen, is 6 lks., position of middle point By 1st set 39.97 chs..
	By 2nd set 40.03 chs.; the mean of which is
40.00	Set a sandstone, 18x10x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{4}$ on W. face; from which A pinion pine, 10 ins. diam., bears E., 40 lks. dist., marked $\frac{1}{2}$ S. 7, B.T. A pinion pine, 12 ins. diam., bears S. 80° W., 45 lks. dist., marked $\frac{1}{2}$ S. 12, B.T.
44.00	Leave ledges and begin more gradual ascent, bears E. and W.
67.00	Top of ridge, 1000 ft. above canon, bears E. and W.; descend. Difference between measurements of 80.00 chs., by two sets of chainmen, is 10 lks.; position of middle point By 1st set 79.95 chs..
	By 2nd set 80.05 chs.; the mean of which is
80.00	Set a sandstone, 24x12x6 ins., 18 ins. in the ground, for cor. of secs. 1, 6, 7, and 12, marked with 1 notch on N. and 5 notches on S. edges; from which A red pine, 8 ins. diam., bears N. 50° E., 60 lks. dist., marked T. 17 S., R. 21 E., S. 6, B.T. A red pine, 24 ins. diam., bears S. 62° E., 51 lks. dist., marked T. 17 S., R. 21 E., S. 7, B.T. A red pine, 6 ins. diam., bears S. 30° W., 22 lks. dist., marked T. 17 S., R. 20 E., S. 12, B.T. A red pine, 30 ins. diam., bears N. 40° W., 12 lks. dist., marked T. 17 S., R. 20 E., S. 1, B.T.
	Land, mountainous and level canon bottom.

Green River Guide Meridian, through Tps. 17 S. etc-Continued.

	Chains	Soil, gravelly and rocky; 3rd and 4th rate. Timber, red pine, pinion pine, aspen, and cedar. Undergrowth, oak and sage brush and greasewood. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
		North, bet. secs. 1 and 6. Over mountainous land; through scattering timber and scattering undergrowth; descend.
39.20		Bottom of hollow, 500 ft. below sec. cor., course N. 70° W. Ascend. Difference between measurements of 40.00 chs., by two sets of chainmen, is 8 lks.; position of middle point By 1st set 39.96 chs.; By 2nd set 40.04 chs.; the mean of which is
40.00		Set a sandstone, 18x10x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which A pine, 8 ins. diam., bears S. 70° E., 40 lks. dist., marked $\frac{1}{4}$ S. 6. R. T. A pine, 36 ins. diam., bears N. 68° W., 18 lks. dist., marked $\frac{1}{4}$ S. 1. B. T.
40.30		Foot of perpendicular cliff, 100 ft. high, bears N. 70° W. and S. 70° E.
45.00		Top of ridge, 250 ft. above hollow, bears E. and W.; descend over ledges.
55.00		Foot of descent, 300 ft. below ridge, bears N. 20° E. and S. 20° W.; leave ledges. Enter bottom of Willow Creek Canon. Enter dense greasewood. Difference between measurements of 80.00 chs., by two sets of chainmen, is 20 lks.; position of middle point By 1st set 79.96 chs.; By 2nd set 80.10 chs.; the mean of which is
80.00		Set a sandstone, 14x12x10 ins., 9 ins. in the ground, for cor. of Tps. 16 and 17 S., R. 20 and 21 E., marked 16 S.

Green River Guide Meridian, through Tps. 17 S., etc., Concluded.

Chains on N.E., 21 E. on S.E., 17 S. on S.W., and 20 E. on N.W. faces; with 6 notches on each edge; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor. Pits impracticable.

Land, mountainous and level canon bottom.

Soil, sandy and gravelly and rocky; 3rd and 4th rate.

Timber, pine and aspen.

Undergrowth, oak and sage brush and greasewood.

Good grass for grazing.

Mountainous land, or land, covered with dense undergrowth, 80.00 chs.

August 21, 1901.

Townships 17 S., Rs. 20 and 21 East are mountainous. They are well watered and well timbered and are very well adapted for grazing purposes.

Andrew Stewart Jr.
U.S. Deputy Surveyor.

August 21, 1901.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____,

United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of _____,

showing the respective capacities in which they acted:

_____, Chainman.

_____, Chainman.

_____, Moundman.

_____, Moundman.

_____, Axman.

_____, Axman.

_____, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____,

United States Deputy Surveyor, in surveying all those parts or portions of the _____,

of the _____,

meridian, _____, of _____, which are represented

in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for _____,

_____, Chainman.

_____, Chainman.

_____, Moundman.

_____, Moundman.

_____, Axman.

_____, Axman.

_____, Flagman.

Subscribed and sworn to before me this _____,

day of _____, 189 _____ } }



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____, bearing date of the _____, I do solemnly swear that, in pursuance of a contract received from _____, United States Surveyor General for _____, bearing date of the _____.

..... day of _____, 189_____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____.

...of the

..... meridian, in the of, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor.

Subscribed by said _____, and sworn to before me
this _____ day of _____, 189



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah March 19, 1903, 189

The foregoing field notes of the survey of The Green River Divide
Meridian township of Salt Lake City East
of The Salt Lake Base & Meridian, Utah

executed by *Charles J. Clegg*, dated *February 2, 1901*, having been
under his contract No. *243*, dated *February 2, 1901*, 1891, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the
surveys they describe, are hereby approved.

Edward A. Budden
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General.

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Filed June 30, 1912. E.D.B.

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BOOK A-291

FIELD NOTES

A. S. B.

OF THE SURVEY OF THE

WEST AND NORTH BOUNDARIES

of

Township No. 17 South Range No. 20 East

Of the BALT LAKE BASE AND Meridian,

in the STATE OF UTAH

AS SURVEYED BY

Andrew J. Stewart Jr.

United States Deputy Surveyor,

Under his Contract No. 243 dated April 12, 1901. ~~MSR~~

Survey commenced August 22, 1901. ~~MSR~~

Survey completed August 26, 1901. ~~MSR~~

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W. H. D. Aug 26, 1901.
A. J. S. Aug 26, 1901.
W. H. D. Aug 26, 1901.

NAMES AND DUTIES OF ASSISTANTS.

William Matson	Chainman
Harvey M. Cluff	Chainman
William Andrews	Moundman
Arthur Wilde	Moundman
Omero Marriotti	Axman
Victor D. Cram	Flagman

BOOK A-291

INDEX DIAGRAM.

Township _____, *Range* _____

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Meanders Page _____

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PRELIMINARY OATHS OF ASSISTANTS.

WE, _____ and _____
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

_____, Chainman.

_____, Chainman.

Subscribed and sworn to before me this _____
day of _____, 189 _____



WE, _____ and _____
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

_____, Moundman.

_____, Moundman.

Subscribed and sworn to before me this _____
day of _____, 189 _____



WE, _____ and _____
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

_____, Axman.

_____, Axman.

Subscribed and sworn to before me this _____
day of _____, 189 _____



I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

_____, Flagman.

Subscribed and sworn to before me this _____
day of _____, 189 _____



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West boundary of T.17 S., R.19 E.

Survey commenced August 22, 1901, and executed with a W. and L.E. Gurley light mountain transit, No. 1, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, on May 29, 1901.

I examine the adjustments of the instrument, and correct the level and collimation errors, then, to test the solar apparatus by comparing its indications resulting from solar observations made during p.m. and a.m. hours with a true meridian established by observation on Polaris, I proceed as follows:

At the cor. of Tps. 17 and 18 S., Rs. 19 and 20 E., heretofore described, latitude $39^{\circ} 17' N.$, longitude $109^{\circ} 49' W.$, I set off $39^{\circ} 17' N.$, on the latitude arc; $11^{\circ} 49' N.$, on the decl. arc; and at 3 h 2 m p.m., l.m.t., determine a true meridian with the solar, and mark a point thereof on a stone, firmly set in the ground, 5.00 chs. N. of cor.

At 9 h 24 m p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark a point in the line thus determined, by a tack driven in a wooden plug, set in the ground, east of the stone already set 5.00 chs. N. of the cor.

August 22, 1901.

August 23, 1901: At 6 h 30 m.a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ} 34', 5''$ to the west, and mark a point in the true meridian thus determined, by cutting a small groove in the stone, already set 5.00 chs. N. of the cor.; on which the true meridian falls 0.28 ins. east of the true meridian, established by the solar.

Test boundary of T.17 S., R.20 E.-Continued.

Chains at 7 h 2 m a.m., l.m.t., I set off $39^{\circ}17'N.$, on the lat. arc; $11^{\circ}35'N.$, on the decl. arc; and mark a point in the true meridian, determined with the solar, by a cross on the stone, already set 5.00 chs. N. of the cor.; this mark falls 0.34 ins. east of the true meridian established by Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for true meridians, respectively about $0'15''$ west and $0'18''$ east of the true meridian established by Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 7 h 30 m a.m., l.m.t., is $15^{\circ} 51.6'W.$, the angle thus determined reduced by the table page 100 of the Manual, gives the mean mag. decl. $15^{\circ}46'E.$

From the above described cor.

I run

North, bet. secs. 31 and 36.

Over mountainous land; through dense undergrowth; ascend.

8.00 Top of ascent, 200 ft. above sec. cor., bears N. $85^{\circ}E.$ and S. $85^{\circ}W.$; Enter heavy timber, bears N. $85^{\circ}E.$ and S. $85^{\circ}W.$ Thence across flat top ridge.

14.00 Leave ridge, bears N. $85^{\circ}E.$ and S. $85^{\circ}W.$; descend.

25.00 Bottom of hollow, 200 ft. below ridge, course W.; Leave timber, bears E. and W. Ascend.

40.00 Set a sandstone, 14x8x6 ins., 9 ins. in the ground, for sec. cor., marked \pm on E. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

45.75 Top of ridge, 300 ft. above hollow, bears N. E. and S. W.; descend.

54.00 Bottom of hollow, 100 ft. below ridge, course S. W.; ascend.

80.00 Set a sandstone, 10x5x5 ins., 11 ins. in the ground, for

West boundary of T.17 S., R.20 E. -Continued.

Chains	cor. of secs. 25, 30, 31, and 36, marked with 5 notches on N. and 1 notch on S. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy and gravelly; 3rd rate. Timber, aspen. Undergrowth, sage brush. Good grass for grazing. Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.
	North, bet. secs. 25 and 30. Over mountainous land; through dense undergrowth; ascend.
17.00	Top of ridge, 200 ft. above sec. cor., bears N. 20° W., S. 30° E., and West. Trail on top, bears N. 20° W. and S. 30° E. descend.
34.00	Bottom of hollow, 100 ft. below ridge, course E.; ascend.
37.50	Trail, on top of ridge, 100 ft. above hollow, bears N.E. and S.W.; descend.
40.00	Set a limestone, 16x10x8 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
50.00	Enter heavy timber, bears N.E. and S.W.
79.00	Bottom of hollow, 250 ft. below ridge, course N.E.; trail in bottom. Ascend.
80.00	Set a sandstone, 18x10x8 ins., 12 ins. in the ground, for cor. of secs. 19, 24, 25, and 30, marked with 4 notches on N. and 2 notches on S. edges; from which An aspen, 8 ins. diam., bears N. 50° E., 65 lks. dist., marked T.17 S., R.20 E., S.19, B.T. An aspen, 4 ins. diam., bears S. 40° E., 30 lks. dist., marked T.17 S., R.20 E., S.30, B.T.

West boundary of T.17 S., R.20 E.-Continued.

Chains An aspen, 8 ins. diam., bears S.45°W., 55 lks.
dist., marked T.17 S., R.19 E., S.25, B.T.
An aspen, 10 ins. diam., bears N.60°W., 45 lks.
dist., marked T.17 S., R.19 E., S.24, B.T.

Land, mountainous.

Soil, gravelly; 3rd rate.

Timber, aspen.

Undergrowth, oak and sage brush.

Good grass for grazing.

Mountainous or heavily timbered land, or land covered
with dense undergrowth, 80.00 chs.

August 23, 1901: At the noon hour the sky is overcast
and solar observations are impossible.

North, bet. secs. 19 and 24..

Over mountainous land; through heavy timber; des-
cend .

3.00 The Jack Spring bears West 4.00 chs. dist. Leave timber.

4.50 Bottom or hollow, 25 ft. below sec. cor., course W. A
corral bears West about 3.00 chs. dist. Ascend .

25.75 Top of ridge, 250 ft. above hollow, bears N.80°E. and
S.80°W.; descend ..

40.00 Set a limestone, 18x12x4 ins., 12 ins. in the ground, for
sec. cor., marked 4 on W. face; and raise a mound of
stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impractic-
able.

Bottom of hollow, 200 ft. below ridge, course S.85°W.;
ascend .

60.00 Top of ridge, 100 ft. above hollow, bears E. and W.; des-
cend .

70.00 Bottom of hollow, 150 ft. below ridge, course W.; as-
cend .

80.00 Set a sandstone, 18x8x8 ins., 12 ins. in the ground, for
cor. of secs. 13, 18, 19, and 24, marked with 3 notches on
N. and 3 notches on S. edge; and raise a mound of

West boundary of T.17 S., R.20 E. -Continued.

Chains	stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, gravelly; 3rd rate.
	Timber, aspen.
	Undergrowth, sage brush.
	Good grass for grazing.
	Mountainous or heavily timbered land, 80.00 chs.
<hr/>	
North, bet. secs. 13 and 18.	
Over mountainous land; through scattering undergrowth; ascend.	
23.65	Top of ridge, 100 ft. above sec. cor., bears E. and W.; descend.
38.50	Bottom of hollow, 40 ft. below ridge, course S. 80° W.; ascend.
40.00	Set a sandstone, 18x12x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
53.50	Top of ridge, 75 ft. above hollow, bears N. 80° W. and S. 80° E.; descend through scattering timber.
80.00	Set a sandstone, 20x14x6 ins., 15 ins. in the ground, for cor. of secs. 7, 12, 13, and 18, marked with 2 notches on N. and 4 notches on S. edges; from which An aspen, 5 ins. diam., bears N. 30° E., 70 lks. dist., marked T. 17 S., R. 20 E., S. 7, B.T. An aspen, 4 ins. diam., bears S. 30° E., 45 lks. dist., marked T. 17 S., R. 20 E., S. 18, B.T. An aspen, 4 ins. diam., bears S. 50° W., 60 lks. dist., marked T. 17 S., R. 19 E., S. 13, B.T. An aspen, 4 ins. diam., bears N. 20° W., 25 lks. dist., marked T. 17 S., R. 19 E., S. 12, B.T.
	Land, mountainous.
	Soil, sandy and gravelly; 3rd rate.

West boundary of T.17 S., R.20 E.-Continued.

Chains	<p>Timber, aspen.</p> <p>Undergrowth, sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, 80.00 chs.</p>
	August 23, 1901.
	<hr/> <p>August 24, 1901: At 7 h 2 m a.m., l.m.t., I set off $39^{\circ} 21' N.$, on the lat. arc; $11^{\circ} 15' N.$, on the decl. arc; and determine a true meridian, with the solar, at the cor. of secs. 7, 12, 13, and 18.</p> <p>Thence I run</p> <p>North, bet. secs. 7 and 12.</p> <p>Over mountainous land; through scattering timber and scattering undergrowth; descend.</p>
2.00	Creek, 2 lks. wide, 2 ins. deep, in canon, 10 ft. below sec. cor., course N. 30° E.; ascend.
40.00	Set a sandstone, 18x10x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
53.50	Top of ridge, 200 ft. above canon, bears N. 25° E. and S. 25° W.; descend.
80.00	Set a sandstone, 18x10x6 ins., 12 ins. in the ground, for cor. of secs. 1, 6, 7, and 12, marked with 1 notch on N. and 5 notches on S. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, sandy and gravelly loam; 2nd rate.
	Timber, pine and aspen.
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	Mountainous land, 80.00 chs.
	<hr/> <p>North, bet. secs. 1 and 6.</p>

West boundary of T.17 S., R.20 E.-Continued.

Chains	Over mountainous land; through scattering undergrowth; descend.
13.50	Bottom of hollow, 100 ft. below sec. cor., course N.40°E.; ascend.
21.50	Top of ascent, 100 ft. above hollow, bears N.35°E. and S.35°W.; thence over level mesa through dense undergrowth.
40.00	Set a sandstone, 16x10x8 ins., 11 ins. in the ground, for sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
80.00	Set a sandstone, 24x12x6 ins., 18 ins. in the ground, for cor. of Tps. 16 and 17 S., Rs. 19, and 20 E., marked 16S. on N.E., 20 E. on S.E., 17 S. on S.W., and 19 E. on N.W. faces; with 6 notches on each edge; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor. Pits impracticable.
	Land, mountainous and level mesa.
	Soil, sandy and gravelly loam and rocky; 2nd and 4th rate.
	No timber.
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	August 24, 1901: At the noon hour the sky is overcast and solar observations are impossible.

East , on a random line along north boundary of T.17 S., R.20 E., setting temp. $\frac{1}{4}$ sec. and sec. cors. at intervals of 40.00 chs., and at 479.30 chs. intersect the Green River Guide Meridian, 56 lks. S. of the cor. of Tps. 16 and 17 S., Rs. 20 and 21 E., heretofore described. The falling answers to a correction of 4' . or 9 lks. South per mile counting from the cor. of Tps. 16 and

North boundary of T.17 S., R.20 E.-Continued.

Chains 17 S., R.20 and 21 S.

August 24, 1901.

August 26, 1901: At 7 h 0 m a.m., l.m.t., I set off $39^{\circ} 23' N.$, on the lat. arc; $10^{\circ} 34' E.$, on the decl. arc; and determine a true meridian with the solar, at the cor. of Tps. 16 and 17 S., R.20 and 21 E., heretofore described.

Thence I run

$S.89^{\circ} 56' W.$, on a true line along North boundary of Tp. 17 S., R.20 E., bet. secs. 1 and 36..

Over mountainous land, through dense undergrowth in bottom of Willow Creek canon.

- 1.00 Willow creek, 15 lks. wide, 6 ins. deep, rapid current, course N. $30^{\circ} E.$.
- 1.50 Trail in canon, bears N.E. and S. $30^{\circ} W.$.
- 2.50 Leave canon bottom, bears N. $30^{\circ} E.$ and S. $30^{\circ} W.$; ascend.
- 26.00 Top of ridge, 200 ft. above Tp. cor., bears N. $25^{\circ} E.$ and S. $25^{\circ} W.$; descend through scattering timber.
- 40.00 Set a sandstone, 16x10x4 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked π on N. face; from which
A pine, 10 ins. diam., bears N. $30^{\circ} E.$, 74 lks.
dist., marked T.16 S., R.20 E., S.36, B.T.
- A cedar, 8 ins. diam., bears S. $10^{\circ} E.$, 60 lks.
dist., marked π S.1, B.T.
- 47.25 Bottom of hollow, 160 ft. below ridge, course N. $25^{\circ} E.$; ascend.
- 55.00 Top of ridge, 200 ft. above hollow, bears N.E. and S.W.; descend.
- 65.00 Set a sandstone, 24x12x6 ins., 18 ins. in the ground, for cor. of secs. 1, 2, 35, and 36, marked with 1 notch on it, and 3 notches on its edges; from which
A cedar, 10 ins. diam., bears N. $41^{\circ} E.$, 130 lks.
dist., marked T.16 S., R.20 E., S.36, B.T.

North boundary of T. 17 S., R. 20 E. -Continued.

	Chains	No other trees within limits; raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy and gravelly loam; 2nd rate. Timber, pine and aspen. Undergrowth, oak and sage brush and greasewood. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
		S. $89^{\circ} 56' W.$, on a true line bet. secs. 2 and 35.
		Over mountainous land; through dense undergrowth and scattering timber; ascend.
10.00		Top of ridge, 50 ft. above sec. cor., bears N. and S.; descend.
36.00		Bottom of hollow, 100 ft. below ridge, course N.; ascend.
40.00		Set a sandstone, 18x12x4 ins., 12 ins. in the ground, for sec. cor., marked <u>1</u> on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
42.50		Top of ridge, 200 ft. above hollow, bears N. and S.; descend.
64.22		Creek, 2 lks. wide, 3 ins. deep, in canon, 500 ft. below ridge, course N.; ascend.
69.87		Top of ridge, 100 ft. above canon, bears N. and S.; descend.
77.00		Foot of descent, 300 ft. below ridge, bears N. $80^{\circ} E.$ and S. $80^{\circ} W.$; enter bottom of Pioche Canon.
79.00		Pioche Creek, 6 lks. wide, 3 ins. deep, course N. $80^{\circ} E.$.
79.60		Trail in canon, bears N. $80^{\circ} E.$ and S. $80^{\circ} W.$
80.00		Set a limestone, 18x8x6 ins., 12 ins. in the ground, for cor. of secs. 2, 3, 34, and 35, marked with 2 notches on E. and 4 notches on W. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

North boundary of T.17 S., R.20 E.-Continued.

Chainable.

Land, mountainous.

Soil, sandy and gravelly; 3rd rate.

Timber, pine and aspen.

Undergrowth, oak and sage brush.

Good grass for grazing.

Mountainous land, or land covered with dense under-growth, \$0.60 aces.

S.80°50' W., on a true line bet. secs. 3 and 34.

Over mountainous land; through dense undergrowth and scattering timber; in bottom of Pioche Canon.

7.00 Leave canon, bears N.60° E. and S.80° W.; ascend.

40.00 Set a sandstone, 18x8x7 ins., 12 ins. in the ground, for cor. of sec. 34, marked with 2 on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable.

60.00 Set a sandstone, 18x8x7 ins., 12 ins. in the ground, for cor. of secs. 3, 4, 33, and 34, marked with 3 notches on N. and 3 notches on W. edges; from which

A pinion pine, 8 ins. diam., bears N.34° E., 64 lbs. dist., marked T.16 S., R.20 E., S.34, B.T.

A pinion pine, 10 ins. diam., bears S.45° E., 25 lbs. dist., marked T.17 S., R.20 E., S.3, B.T.

A cedar, 12 ins. diam., bears S.25° W., 20 lbs. dist., marked T.17 S., R.20 E., S.4, B.T.

A pinion pine, 14 ins. diam., bears N.15° W., 76 lbs. dist., marked T.16 S., R.20 E., S.33, B.T.

Land, mountainous.

Soil, sandy and gravelly loam; 2nd rate.

Timber, pinon pine, cedar and aspen.

Undergrowth, oak and sage brush.

Good grass for grazing.

Mountainous land, or land covered with dense under-growth, \$0.60 aces.

North boundary of T.17 S., R.20 E.-Continued.

- Chains August 26, 1901: At this cor. I set off $10^{\circ}29'N.$, on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ}23'N.$.
- S. $89^{\circ}56'W.$, on a true line bet. secs. 4 and 33.
Over mountainous land, through heavy timber and scattering undergrowth; ascend.
- 12.00 Begin abrupt ascent, bears N.E. and S.W.
- 26.00 Leave heavy and enter scattering timber, bears N.E. and S.W.
- 40.00 Set a sandstone, $14 \times 10 \times 8$ ins., 9 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ in N. face; from which
A lone pinion pine, 6 ins. diam., bears S. $40^{\circ}E.$
93 lks. dist., marked $\frac{1}{2}$ S. 4, B.T.
No other tree within limits; raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 42.00 Top of ridge known as "Windy Point",
, 400 ft. above sec.cor., bears N. $20^{\circ}E.$ and S. $20^{\circ}W.$, trail on top. Leave timber, bears with ridge; descend.
- 61.10 Bottom of hollow, 100 ft. below ridge, course N. $20^{\circ}E.$; ascend. Enter dense undergrowth, bears with hollow.
- 67.75 Top of ridge, 100 ft. above hollow, bears N. $20^{\circ}E.$ and S. $20^{\circ}W.$; Divide between Pioche and Hill Creek Canons; descend.
- 80.00 Set a limestone, $20 \times 12 \times 5$ ins., 15 ins. in the ground, for cor. of secs. 4, 5, 32, and 33, marked with 4 notches on E. and 2 notches on W. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, mountainous.
Soil, sandy and gravelly loam; 2nd rate.
Timber, cedar and pinion pine.
Undergrowth, oak and sage brush.
Good grass for grazing.
Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.

North boundary of Tp.17 S., R.20 E.-Continued.

Chains

- S.89° 56'W., on a true line bet.secs.5 and 32.
Over mountainous land;through dense undergrowth;descend .
23.70 Corral Creek,6 lks.wide,3 ins.deep,in bottom of Corral Creek Canon,250 ft.below sec.cor.,course N.20° W.;
24.00 Main trail to Thompsons bears with hollow.Ascend.
40.00 Set a sandstone,15x13x4 ins.,10 ins.in the ground,for $\frac{1}{2}$ sec.cor.,marked $\frac{1}{4}$ on N.face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,N.of cor.Fits impracticable.
55.50 Top of ridge,500 ft.above canon,bears N.and S.;descend .
67.50 Enter heavy timber,bears N.and S.
80.00 Set a sandstone,18x8x8 ins.,12 ins.in the ground,for cor.of secs.5,6,31, and 32,marked with 5 notches on E.and 1 notch on W.edges;from which
A pine,14 ins.diam.,bears N.38° E.,67 lks.
dist.,marked T.16 S.,R.20 E.,S.32,B.T.
A pinion pine,14 ins.diam.,bears S.10° E., $1\frac{1}{2}$ lks.dist.,marked T.17 S.,R.20 E.,S.5,B.T.
A pinion pine,7 ins.diam.,bears S.15° W.,19 lks.dist.,marked T.17 S.,R.20 E.,S.6,B.T.
A pinion pine,17 ins.diam.,bears N.35° W., $70\frac{1}{2}$ lks.dist.,marked T.16 S.,R.20 E.,S.31,B.T.
Land,mountainous.
Soil,sandy and gravelly loam;2nd rate.
Timber,pine and cedar.
Undergrowth,oak and sage brush.
Good grass for grazing.
Mountainous land,or heavily timbered land,or land covered with dense undergrowth,80.00 chs.

S.89° 56'W.,on a true line bet.secs.6 and 31.

North boundary of T.17 S., R.20 E.-Concluded.

Chains Over mountainous land; through dense undergrowth and heavy timber; descend.

30.30 Creek, 10 lks. wide, 3 ins. deep, in bottom of canon, 200 ft. below ridge, course N.W.; ascend.

40.00 Set a sandstone, 18x12x6 ins., 12 ins. in the ground, for sec.cor., marked $\frac{1}{2}$ on N.face; from which
 A pinion pine, 18 ins. diam., bears N. 35° W., 30 lks. dist., marked $\frac{1}{2}$ S. 31, B.T.
 A pinion pine, 10 ins. diam., bears S. 10° E., 20 lks. dist., marked $\frac{1}{2}$ S. 6, B.T.

63.50 Top of ascent, 200 ft. above canon, bears N.W. and S.E. Thence over level mesa. Leave timber, bears N.W. and S.E.

79.30 The cor.of Tps.16 and 17 S.,Rs.19 and 20 E., Land, mountainous and level mesa.
 Soil, sandy and gravelly; 3rd rate.
 Timber, pinion pine and aspen and cedar.
 Undergrowth, sage brush.
 Good grass for grazing.
 Mountainous or heavily timbered land, or land covered with dense undergrowth, 79.30 chs.

August 26, 1901.

Boundaries of T.17 S., R.20 E.

Latitudes, departures, and closing errors.

Line designated	True bearing North	dist- ance	Latitudes N. chs.	Departure E. chs.	W. chs.
W.bdy.T.17 S.,R.20 E.	North	480.00	480.00		
N.bdy.T.17 S.,R.20 E.	N. $89^{\circ} 56'$ E.	479.30	.56	479.30	
E.bdy.T.17 S.,R.20 E.	South	480.00	480.00		
S.bdy.T.17 S.,R.20 E.	S. $89^{\circ} 52'$ W.	479.68	1.12		479.68
Convergency				.50	
Error in lat.			480.56	481.12	479.59
Error in dep.			480.56	479.68	.56

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This township is all mountainous, well timbered and

Boundaries of T. 17 S., R. 20 E.-Continued.

well watered .The township produces an abundant growth of rich and nutritious grasses and is very well adapted for grazing.

Andrew Stewart Jr.
U.S. Deputy Surveyor.

August 26, 1901.

Volume

#

R0291

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of _____ showing the respective capacities in which they acted:

_____, Chainman.

_____, Chainman.

_____, Moundman.

_____, Moundman.

_____, Axman.

_____, Axman.

_____, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____, United States Deputy Surveyor, in surveying all those parts or portions of the _____ meridian, _____ of the _____, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for _____.

_____, Chainman.

_____, Chainman.

_____, Moundman.

_____, Moundman.

_____, Axman.

_____, Axman.

_____, Flagman.

Subscribed and sworn to before me this _____

day of _____, 189_____ }



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from United States Surveyor General for bearing date of the day of , 189 I have, with faithfulness, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of of the meridian, in the of which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 5, 1866.

United States Deputy Surveyor.

Subscribed by said _____ and sworn to before me this _____ day of _____, 18____



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Duchess County, N.Y., March 15, 1913.
The foregoing field notes of the survey of the West & North Boundaries
of Township 17, Smith Range, 10 East of the last Lake
Bank & Reservation, etc.

executed by *John J. Meek*,
under his contract No. *349*, dated *April 12, 1901*, 189, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the
surveys they describe, are hereby approved.

Edward H. Hulett, Jr.
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in.....
....., has been correctly copied from the original notes on file in this office.

United States Surveyor General.

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Filed June 30, 1901. E.D.B.
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BOOK A-291

FIELD NOTES

A.S.B.

OF THE SURVEY OF THE

SUBDIVISION

of

Township No. 17 South, Range No. 20 East,

Of the SALT LAKE BASE AND Meridian,
in the STATE OF UTAH

AS SURVEYED BY

Andrew J. Stewart Jr., United States Deputy Surveyor,

Under his Contract No. 243, dated April 12, 1901. x189x

Survey commenced August 27, 1901. x189x

Survey completed September 9, 1901. x189x

6-151

High 59.7785 ✓

NAMES AND DUTIES OF ASSISTANTS.

William Matson Chairman
Harvey M. Cluff Chairman
William E Andrews Moundman
Arthur Wilde Moundman
Omero Marriotti Axman
Victor D. Gram Flagman

In facsimile my official signature of D. J. G. R. S. P. C. O.

BOOK A-291

INDEX DIAGRAM.

Township _____, *Range* _____

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30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

WE, and do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., *Chainman.*

....., *Chainman.*

Subscribed and sworn to before me this }
day of , 189 }



WE, and do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., *Moundman.*

....., *Moundman.*

Subscribed and sworn to before me this }
day of , 189 }



WE, and do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., *Axman.*

....., *Axman.*

Subscribed and sworn to before me this }
day of , 189 }



I, , do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., *Flagman.*

Subscribed and sworn to before me this }
day of , 189 }



Subdivision of T.17 S., R.20 E.

Survey commenced August 27, 1901, and executed with a W. and L.E. Gurley light mountain transit, No. 1, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, on May 29, 1901.

I examine the adjustments of the instrument, and correct the level and collimation errors, then, to test the solar apparatus by comparing its indications resulting from solar observations made during p.m. and a.m. hours, with a true meridian, established by observation on Polaris, I proceed as follows:

At the cor. of secs. 1, 2, 35, and 36, on S. bdy. of Tp., heretofore described, latitude $39^{\circ} 17' N.$, longitude $109^{\circ} 42' W.$, I set off $39^{\circ} 17' N.$, on the lat. arc; $10^{\circ} 5' N.$, on the decl. arc; and at 3 h 58 m p.m., l.m.t., determine a true meridian, with the solar, and mark a point thereof on a stone, firmly set in the ground, 5.00 chs. N. of the cor.

At 9 h 5 m p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark a point in the line thus determined, by a tack driven in a wooden plug set in the ground, east of the stone already set in the ground, 5.00 chs. N. of the cor.

August 27, 1901.

August 28, 1901: At 6 h 30 m a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ} 34.5'$ to the west, and mark a point in the true meridian, thus determined, by cutting a small groove in the stone, already set 5.00 chs. N. of the cor.; on which the true meridian falls 0.23 ins. east of the true meridian determined with the solar.

Subdivision of T.17 S., R.20 E. -Continued.

Chains	At 7 h 3 m a.m., l.m.t., I set off $39^{\circ}17'N.$, on the lat. arc; $9^{\circ}52'N.$, on the decl. arc; and mark a point in the true meridian, determined with the solar, by a cross on the stone, already set 5.00 chs. N. of the cor.; this mark falls 0.34 ins. east of the true meridian, established by Polaris observation. The solar apparatus by p.m. and a.m. observations, defines positions for true meridians, respectively about $0'12''$ west and $0'18''$ east of the true meridian established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory. The magnetic bearing of the true meridian, at 7 h 30 m a.m., l.m.t., is $15^{\circ}51.7'W.$, the angle thus determined reduced by the table page 100 of the Manual gives the mean mag. decl. $15^{\circ}46'E.$
	From the above described cor.
	I run
	N. $0^{\circ}01'W.$, bet. secs. 35 and 36.
	Over mountainous land; through scattering timber and scattering undergrowth; descend.
19.00	Bottom of hollow, 300 ft. below sec. cor., course N.E.; ascend.
25.00	A small spring bears East about 6.00 chs. dist.
38.00	Top of ridge, 350 ft. above hollow, bears N.E. and S.W.; descend.
40.00	Set a sandstone, 18x9x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
54.50	Bottom of hollow, 200 ft. below ridge, course N.E.; ascend.
77.50	Top of ridge, 300 ft. above hollow, bears N. $40^{\circ}E.$ and S. $40^{\circ}W.$; descend.
80.00	Set a sandstone, 18x7x6 ins., 12 ins. in the ground, for cor. of secs. 25, 26, 35, and 36, marked with 1 notch on

Subdivision of T. 17 S., R. 20 E. -Continued

Chains	S. and 1 notch on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable. Land, mountainous. Soil, sandy and gravelly; 3rd rate. Timber, pine and cedar. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, 80.00 chs.
	N. $89^{\circ} 52' E.$, on a random line bet. secs. 25 and 36.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.98	Intersect Green River Guide Meridian, at the cor. of secs. 25, 30, 31, and 36, heretofore described. Thence I run S. $89^{\circ} 52' W.$, on a true line bet. secs. 25 and 36. Over mountainous land; through dense undergrowth and scattering timber; ascend.
26.50	Top of ridge, 350. ft. above sec. cor., bears N. $20^{\circ} W.$ and S. $20^{\circ} E.$; descend.
39.99	Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
51.35	Bottom of hollow, 450 ft. below ridge, course N. $40^{\circ} W.$; leave dense undergrowth and enter scattering undergrowth, bears with hollow. Ascend.
78.50	Top of ridge, 300 ft. above hollow, bears N. $40^{\circ} E.$ and S. $40^{\circ} W.$; descend.
79.98	The cor. of secs. 25, 26, 35, and 36. Land, mountainous... Soil, sandy and gravelly; 3rd rate. Timber, pine and cedar. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense under-

Subdivision of T.17 S., R.20 E.-Continued.

Chains	growth, 79.98 chs.
	N.0°01'W., bet. secs. 25 and 26. Over mountainous land; through scattering timber and scattering undergrowth; descend.
40.00	Set a sandstone, 18x14x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
55.00	Bottom of canon, 500 ft. below sec. cor., course W.; ascend.
80.00	Set a sandstone, 20x14x7 ins., 15 ins. in the ground, for cor. of secs. 23, 24, 25, and 26, marked with 2 notches on S. and 1 notch on E. edges; from which A pinion pine, 20 ins. diam., bears N. 27° E., 105 lks. dist., marked T.17 S., R.20 E., S.24, B.T. A pinion pine, 8 ins. diam., bears S. 67° E., 67 lks. dist., marked T.17 S., R.20 E., S.25, B.T. A white pine, 30 ins. diam., bears S. 36° W., 8 lks. dist., marked T.17 S., R.20 E., S.26, B.T. A cedar, 12 ins. diam., bears N. 39° W., 62 lks. dist., marked T.17 S., R.20 E., S.23, B.T. Land, mountainous. Soil, sandy and gravelly and rocky; 3rd and 4th rate. Timber, pine and cedar. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, 80.00 chs. August 28, 1901: At this cor. I set off 9° 47' N., on the decl. arc; and at 9 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39° 19' N.
40.00	N. 89° 52' E., on a random line bet. secs. 24 and 25. Set temp. $\frac{1}{4}$ sec. cor.

Subdivision of T.17 S., R.20 E.-Continued.

Chains

- 80.04 Intersect the Green River Guide Meridian, 15 lks. N. of the cor. of secs. 19, 24, 25, and 30, heretofore described.
 Thence I run
 S. $89^{\circ} 58' W.$, on a true line bet. secs. 24 and 25.
 Over mountainous land; through heavy timber and scattering undergrowth; ascend.
- 21.00 Top of ridge, 300 ft. above sec. cor., bears N. $10^{\circ} E.$ and S. $10^{\circ} W.$; descend.
- 33.00 Bottom of canon, 450 ft. below ridge, course N.; ascend.
- 40.02 Set a sandstone, 20x8x6 ins., 15 ins. in the ground, for sec. cor., marked π on N. face; from which
 A pine, 30 ins. diam., bears N., 75 lks. dist., marked π S. 24, B.T.
 A pine, 20 ins. diam., bears S. $10^{\circ} E.$, 90 lks. dist., marked π S. 25, B.T.
- 54.75 Top of High ridge, 500 ft. above canon, bears N. $20^{\circ} E.$ and S. $20^{\circ} W.$; descend.
- 80.04 The cor. of secs. 23, 24, 25, and 26.
 land, mountainous.
 Soil, gravelly and rocky; 3rd and 4th rate.
 Timber, pine, aspen, and cedar.
 Undergrowth, oak and sage brush.
 Good grass for grazing.
 Mountainous or heavily timbered land, 80.04 chs.
-
- N. $0^{\circ} 01' W.$, bet. secs. 23 and 24.
 Over mountainous land; through heavy timber and scattering undergrowth; ascend.
- 1.50 Top of ridge, 25. ft. above sec. cor., bears E. and W.; leave heavy and enter scattering timber, bears with ridge. Descend.
- 25.50 Bottom of hollow, 500 ft. below ridge, course N. $60^{\circ} W.$; ascend abruptly over a series of ledges.

Subdivision of T.17 S., R.20 E.-Continued.

Chains:

31.75 Top of ridge, 250 ft. above hollow, bears E. and W.; descend abruptly over ledges . . .

40.00 Set a sandstone, 16x10x5 ins., 11 ins. in the ground, for
sec. cor., marked $\frac{1}{2}$ on W. face; from which

A long leaf pine, 24 ins. diam., bears S. 70° E.,
55 lks. dist., marked $\frac{1}{2}$ S. 24, B.T.

A long leaf pine, 3 ft. diam., bears S. 1° W.,
70 lks. dist., marked $\frac{1}{2}$ S. 23, B.T.

42.00 End of descent, 350 ft. below ridge, bears N. 30° E. and
S. 30° W.; leave ledges. Enter bottom of Willow Creek
Canon.

50.30 Willow Creek, 10 lks. wide, 8 ins. deep, rapid current,
sandy bottom, course N. 30° E.

53.60 Trail, in canon, bears N. 30° E. and S. 30° W.

57.00 Leave canon bottom, bears N. 40° E. and S. 40° W.; ascend
abruptly over ledges . . .

80.00 Set a sandstone, 18x18x8 ins., 12 ins. in the ground,
for cor. of secs. 13, 14, 23, and 24, marked with 3 notches
on S. and 1 notch on E. edges; from which

A cedar, 20 ins. diam., bears N. 40° E., 70 lks.
dist., marked T. 17 S., R. 20 E., S. 13, B.T.

A cedar, 18 ins. diam., bears S. 30° E., 20 lks.
dist., marked T. 17 S., R. 20 E., S. 24, B.T.

A cedar, 24 ins. diam., bears S. 50° W., 40 lks.
dist., marked T. 17 S., R. 20 E., S. 23, B.T.

A pinion pine, 8 ins. diam., bears N. 50° W., 80
lks. dist., marked T. 17 S., R. 20 E., S. 14, B.T.

Land, mountainous.

Soil, gravelly and rocky; 3rd and 4th rate.

Timber, pine, cedar and aspen.

Undergrowth, oak and sage brush.

Good grass for grazing.

Mountainous or heavily timbered land, 80.00 chs.

Subdivision of T.17 S., R.20 E.-Continued.

- Chains N. $89^{\circ} 58' E.$, on a random line bet. secs. 13 and 24.
- 40.00 Set temp. at sec. cor.
- 80.10 Intersect the Green River Guide Meridian, 5 lks. N. of the cor. of secs. 13, 18, 19, and 24, heretofore described. thence I run West, on a true line bet. secs. 13 and 24. Over mountainous land; through dense undergrowth; and scattering timber; descend.
- 9.50 Bottom of canon, 300 ft. below sec. cor., course N.; ascend.
- 28.50 Top of ridge, 500 ft. above canon, bears N. $10^{\circ} E.$ and S. $10^{\circ} W.$; descend abruptly over ledges.
- 40.05 Set a sandstone, 18x9x6 ins., 12 ins. in the ground, for sec. cor., marked \pm on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 60.00 Foot of descent, 600 ft. below ridge, bears N. and S.; leave ledges. Enter bottom of Willow Creek Canon.
- 64.00 Trail in canon, bears N. and S.
- 64.75 Willow Creek, 12 lks. wide, 8 ins. deep, rapid current, sandy bottom, course N.
- 65.50 Leave canon bottom, bears N. and S.; ascend abruptly over ledges.
- 66.00 Enter heavy timber, bears N. and S.
- 80.10 The cor. of secs. 13, 14, 23, and 24.
Land, mountainous.
Soil, sandy and gravelly and rocky; 3rd and 4th rate.
Timber, pine and aspen and cedar.
Undergrowth, oak and sage brush.
Good grass for grazing.
Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.10 chs.

August 28, 1901.

August 29, 1901: At 7 h 0 m a.m., l.m.t., I set off 39°

Subdivision of T.17 S., R.20 E. -Continued.

Chains	20' n., on the lat.arc; 9° 31' N., on the decl.arc; and determine a true meridian, with the solar, at the cor.of secs. 13, 14, 23, and 24. Thence I run N.O 01' W., bet. secs. 13 and 14. Over mountainous land; through dense undergrowth and heavy timber; ascend over ledges .
20.00	Leave ledges, bears N.E. and S.W. Enter scattering timber.
40.00	Set a sandstone, 20x8x7 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
80.00	Set a sandstone, 16x10x6 ins., 11 ins. in the ground, for cor.of secs. 11, 12, 13, and 14, marked with 4 notches on S. and 1 notch on E.edges; from which A cedar, 26 ins. diam., bears N. 20° E., 12 lks. dist., marked T.17 S., R.20 E., S.12, B.T. A pinion pine, 16 ins. diam., bears S. 20° E., 65 lks. dist., marked T.17 S., R.20 E., S.13, B.T. A cedar, 15 ins. diam., bears S. 70° W., 16 lks. dist., marked T.17 S., R.20 E., S.14, B.T. A pine, 28 ins. diam., bears N. 30° W., 48 lks. dist., marked T.17 S., R.20 E., S.11, B.T. Land, mountainous. Soil, sandy and gravelly; 3rd rate. Timber, pine and cedar. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.
40.00	Set temp. $\frac{1}{2}$ sec.cor.
79.92	Intersect the Green River Guide Meridian, 7 lks. N. of the cor.of secs. 7, 12, 13, and 18, heretofore described. Thence I run

Subdivision of T.17 S., R.20E.-Continued.

Chains	N. $89^{\circ}57'W.$, on a true line bet. secs. 12 and 13.
	Over mountainous land; through dense undergrowth and scattering timber; in bottom of East Willow Creek Canon.
7.00	Leave canon bottom, bears N.W. and S.; ascend.
24.00	Top of ridge, 300 ft. above canon, bears N. and S.; descend over ledges.
39.96	Get a sandstone, $18 \times 7 \times 6$ ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
43.75	Foot of descent, 450 ft. below ridge, bears N. $25^{\circ}E.$ and S. $25^{\circ}W.$ Leave ledges. Enter Bottom of Willow Creek Canon.
45.50	Willow Creek, 12 lks. wide, 6 ins. deep, rapid current, sandy bottom, course N. $25^{\circ}E.$
46.00	Trail in canon, bears N. $25^{\circ}E.$ and S. $25^{\circ}W.$
47.00	Leave canon bottom, bears N. $25^{\circ}E$ and S. $25^{\circ}W.$; ascend abruptly over ledges.
79.92	The cor. of secs. 11, 12, 13, and 14. Land, mountainous and level canon bottom. Soil, gravelly and rocky; 3rd and 4th rate. Timber, pine and cedar. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.92 chs.
	N. $0^{\circ}01'W.$, bet. secs. 11 and 12. Over mountainous land; through scattering timber and scattering undergrowth; ascend over ledges.
26.00	Top of ridge, 250 ft. above sec.cor., bears N.E. and S.W.; leave ledges. Descend.
40.00	Set a sandstone, $18 \times 10 \times 6$ ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impractic-

Subdivision of T.17 S., R.20 E.-Continued.

Chains able.

51.50 Bottom of hollow, 300 ft. below ridge, course N.60° E.;

ascend.

80.00 Set a sandstone, 18x12x4 ins., 12 ins. in the ground, for cor. of secs. 1, 2, 11, and 12, marked with 5 notches on S. and 1 notch on E. edges; from which

A mahogany, 5 ins. diam., bears N.35° E., .82

lks. dist., marked T.17 S., R.20 E., S.1, B.T.

No other trees within limits; raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, gravelly and rocky; 3rd and 4th rate.

Timber, cedar and pinion pine.

Undergrowth, oak and sage brush and mahogany.

Good grass for grazing.

Mountainous land, 80.00 chs.

August 29, 1901: At the noon hour the sky is overcast and solar observations are impossible.

S.89° 57' E., on a random line bet. secs. 1 and 12.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.88 Intersect the Green River Guide Meridian, 12 lks. S. of the cor. of secs. 1, 6, 7, and 12, heretofore described.

Thence I run

S.89° 58' W., on a true line bet. secs. 1 and 12.

Over mountainous land; through scattering timber and scattering undergrowth; descend.

25.00 Foot of descent, 200 ft. below sec. cor., bears N.25° E. and S.25° W.; enter bottom of Willow Creek Canon. Enter dense greasewood.

27.00 Willow Creek, 15 lks. wide, 4 ins. deep, rapid current, sandy bottom, course N.20° E.

27.75 Rail in canon, bears N.20° E. and S.20° W.

30.00 Leave canon bottom, bears N.16° E. and S.16° W.; ascend.

39.94 Set a sandstone, 18x9x5 ins., 12 ins. in the ground, for

Subdivision of T. 17 S., R. 20 E.-Continued.

Chains	$\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
47.00	Top of ridge, 250 ft. above canon, bears N. 30° W and S. 30° E.; descend.
63.50	Bottom of hollow, 200 ft. below ridge, course S. 50° E.; ascend over ledges.
79.88	The cor. or secs. 1, 2, 11, and 12. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, pine and cedar. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.88 chs.

	N. $0^{\circ} 01' W.$, on a random line bet. secs. 1 and 2.
40.00	Set temp. $\frac{1}{2}$ sec.cor.
80.10	Intersect N. bdy. of Tp., at the cor. of secs. 1, 2, 35, and 36, heretofore described. Thence I run S. $0^{\circ} 01' E.$, on a true line bet. secs. 1 and 2. Over mountainous land; through dense undergrowth and scattering timber; ascend.
14.50	Top of ridge, 200 ft. above sec.cor., bears N. E. and S. W.; descend over ledges.
38.75	Bottom of hollow, 300 ft. below ridge, course S. 85° E.; ascend.
40.10	Set a sandstone, 24x13x5 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high; W. of cor. Pits impracticable.
56.40	Top of ridge, 400 ft. above hollow, bears E. and W.; descend.
80.10	The cor. of secs. 1, 2, 11, and 12.

Subdivision of T.17 S., R.20 E.-Continued.

Chains	<p>Land, mountainous.</p> <p>Soil, sandy and gravelly and rocky; 3rd and 4th rate.</p> <p>Timber, pine and cedar.</p> <p>Undergrowth, oak and sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.10 chs.</p>
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August 29, 1901.

August 30, 1901: At 7 h 30 m a.m., l.m.t., I set off $39^{\circ}17'N.$, on the lat.arc; $9^{\circ}09'N.$, on the decl.arc; and determine a true meridian, with the solar, at the cor. of secs. 2, 3, 34, and 35, on S.bdy. of Tp., Meretofore described.

Thence I run

$N.0^{\circ}01'W.$, bet. secs. 34 and 35.

Over mountainous land; through scattering timber and scattering undergrowth; descend.

- 30.00 Bottom or hollow, 200 ft. below sec.cor., course $N.50^{\circ}W.$. Ascend.
- 40.00 Set a sandstone, $20 \times 10 \times 4$ ins., 15 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
- 49.75 Top of ridge, 300 ft. above hollow, bears $N.60^{\circ}W.$ and $S.60^{\circ}E.$; descend.
- 66.00 Bottom or hollow, 300 ft. below ridge, course $N.60^{\circ}W.$; ascend gradually.
- 80.00 Set a sandstone, $15 \times 12 \times 6$ ins., 10 ins. in the ground, for cor.of secs. 26, 27, 34, and 35, marked with 1 notch on S. and 2 notches on E.edges; from which
- pine, 15 ins. diam., bears $N.12^{\circ}E.$, 60 lks. dist., marked T.17 S., R.20 E., S 26, B.T.
 - pine, 30 ins. diam., bears $S.55^{\circ}E.$, 20 lks. dist., marked T.17 S., R.20 E., S.35, B.T.

Subdivision of T.17 S., R.20 E. -Continued.

Chains A pine, 10 ins. diam., bears S. 38° W., 21 lks.
 dist., marked T.17 S., R.20 E., S.34, B.T.
 A pine, 5 ins. diam., bears N. 7° W., 60 lks.
 dist., marked T.17 S., R.20 E., S.27, B.T.
 Land, mountainous.
 Soil, gravelly and rocky; 3rd and 4th rate.
 Timber, pine and cedar.
 Undergrowth, oak and sage brush.
 Good grass for grazing.
 Mountainous land, 80.00 chs.

N. 89° 52' E., on a random line bet. secs. 26 and 35.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.08 Intersect N. and S. line, 12 lks. N., of the cor. of secs.
 25, 26, 35, and 36.
 Thence I run
 S. 89° 57' W., on a true line bet. secs. 26 and 35.
 Over mountainous land; through scattering timber and
 scattering undergrowth; descend.
 20.00 Bottom of hollow, 200 ft. below sec. cor., course N.; as-
 cend.
 40.04 Set a sandstone, 18x5x4 ins., 12 ins. in the ground, for
 $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of
 stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impractic-
 able.
 50.00 Top of ridge, 250 ft. above hollow, bears N. 25° W. and
 S. 25° E.; descend.
 80.08 The cor. of secs. 26, 27, 34, and 35.
 Land, mountainous.
 Soil, sandy and gravelly; 3rd rate.
 Timber, pine and aspen and cedar.
 Undergrowth, oak and sage brush.
 Good grass for grazing.
 Mountainous land, 80.08 chs.

Subdivision of T.17 S., R.20 E. -Continued.

Chains	
	N. 0° 01' W., bet. secs. 26 and 27. . .
	Over mountainous land; through scattering timber and scattering undergrowth; descend.. .
3.25	Foot of descent, 50 ft. below sec. cor., bears E. and W. Enter bottom of Willow Creek Canon. Enter dense greasewood.. .
3.60	Willow Creek, 10 lks. wide, 4 ins. deep, course E.. .
4.00	Trail in canon, bears E. and W.. .
8.00	Leave canon bottom, bears E. and W.; ascend . .
8.50	Leave greasewood, bears E. and W.. .
12.00	Foot of perpendicular ledge, 50 ft. high, bears E. and W.; thence over a series of ledges.. .
40.00	Set a sandstone, 20x10x4 ins., 15 ins. in the ground, for $\frac{1}{4}$. sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
60.00	Leave ledge's, bears E. and W.. .
80.00	Set a sandstone, 18x9x5 ins., 12 ins. in the ground, for cor. of secs. 22, 23, 26, and 27, marked with 2 notches on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous.. .
	Soil, sandy and gravelly; 3rd rate.. .
	Timber, pine and cedar.. .
	Undergrowth, oak and sage brush.. .
	Good grass for grazing.. .
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.. .
	August 30, 1901: At this cor. I set off 9° 04' N., on the decl. arc; and at 0 h 2 m p.m.l.m.t., observe the sun on the meridian, the resulting lat. is 39° 19' N.
	N. 89° 57' E. on a random line bet. secs. 23 and 26.. .

Subdivision of T.17 S., R.20 E.-Continued.

Chains	
40.00	Set temp. at sec.cor..
80.14	Intersect N. and S. line, at the cor. of secs. 23, 24, 25, and 26. Thence I run S. 89° 57' W., on a true line bet. secs. 23 and 26. Over mountainous land; through scattering timber and scattering undergrowth; descend.
22.00	Foot or descent, 275 ft. below sec.cor., bears N. 15° E. and S. 15° W.; enter bottom of Willow Creek Canon.
24.00	Willow Creek, 12 lks. wide, 6 ins. deep, course N. 15° E.
24.50	Trail in canon; bears N. 15° E. and S. 15° W.
26.26	Leave canon bottom, bears N. 15° E. and S. 15° W.; ascend abruptly.
33.00	Top of ridge, 200 ft. above canon, bears N. W. and S. E.; descend.
40.07	Set a sandstone, 20x10x10 ins., 15 ins. in the ground, for a sec.cor., marked π on N. face; and raise a mound of stone, 2 ft. base, 1 ft. high, N. of cor. Pits impracticable.
80.14	The cor. of secs. 22, 23, 26, and 27. Land, mountainous. Soil, sandy and gravelly; 3rd rate. Timber, pine and cedar. Undergrowth, oak and sage brush. Mountainous land, 80.14 chs.
	N. 0° 01' W., bet. secs. 22 and 23. Over mountainous land; through scattering timber and scattering undergrowth; ascend.
1.50	Top of ridge, 20 ft. above sec.cor., bears E. and W.; descend.
25.50	Bottom of hollow, 500 ft. below ridge, course S. 60° E.; ascend.
40.00	Set a sandstone, 20x14x10 ins., 15 ins. in the ground,

Subdivision of T.17 S., R.20 E.-Continued.

	Chains for $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
42.00	Top of ridge, 100 ft. above $\frac{1}{4}$ sec.cor., bears E. and W.; descend .
65.50	Bottom of hollow, 200 ft. below ridge, course E.; ascend .
72.00	Top of ridge, 200 ft. above hollow, bears E. and W.; descend .
80.00	Set a sandstone, 18x7x7 ins., 12 ins. in the ground, for cor. of secs. 14, 15, 22, and 23, marked with 3 notches on S. and 2 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
	Land; mountainous.
	Soil, sandy and gravelly; 3rd rate.
	Timber, pine and cedar.
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	Mountainous land, 80.00 chs.
	N. 89° 57' E., on a random line bet. secs. 14 and 23.
40.00	Set temp. $\frac{1}{2}$ sec.cor.
80.02	Intersect N. and S. line, 7 lms. N. of the cor. of secs. 13, 14, 23, and 24.
	Thence I run ✓
	West, on a true line bet. secs. 14 and 23.
	Over mountainous land; through scattering timber and scattering undergrowth; ascend over ledges.
30.00	Leave ledges, bears N. and S.
40.01	Set a limestone, 24x20x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable .
56.50	Top of ridge, 600 ft. above cor., bears N. and S. 70° W.;

Subdivision of T.17 S., R.20 E.-Continued.

Chains descend .
 80.02 The cor.of secs.14,15,22, and 23.
 Land,mountainous.
 Soil,sandy and gravelly;3rd rate.
 Timber,pine and cedar.
 Undergrowth,oak and sage brush..
 Good grass for grazing.
 Mountainous land,80.02 chs.

August 30,1901.

August 31,1901:At 7 h.2 m a.m.,l.m.t.,I set off 39° 20'N.,on the lat.arc;8° 48'N.,on the decl.arc;and determine a true meridian,with the solar,at the cor.of secs.14,15,22, and 23.

Thence I run

N.0° 01'W.,betsecs.14 and 15.

Over mountainous land;through scattering undergrowth and stattering timber;descend .

- 5.00 Enter dense undergrowth,bears N.E.and S.W.;
- 22.00 Bottom of hollow,250 ft.below sec.cor.,course N.10°E. Ascend .
- 40.00 Set a sandstone,20x10x8 ins.,15 ins.in the ground,for $\frac{1}{2}$ sec.cor.,marked $\frac{1}{2}$ on W.face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
- 80.00 Set a limestone,20x12x4 ins.,15 ins.in the ground,for cor.of secs.10,11,14, and 15,marked with 4 notches on S.and 2 notches.on E.edges;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
- Land,mountainous.
- Soil,sandy and gravelly;3rd rate.
- Timber,pine and cedar.
- Undergrowth,oak and sage brush.
- Good grass for grazing.

Subdivision of T.17 S., R.20 E.-Continued.

Chains	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	East, on a random line bet. secs. 11 and 14.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.90	Intersect N. and S. line, 2 lks. N., of the cor. of secs. 11, 12, 13, and 14.
	Thence I run
	N. $89^{\circ} 59' W.$, on a true line bet. secs. 11 and 14.
	Over mountainous land; through dense undergrowth; ascend.
17.00	Top of ridge, 250 ft. above sec. cor., bears N. $25^{\circ} E.$ and S. $25^{\circ} W.$; descend.
32.75	Bottom of hollow, 300 ft. below ridge, course N. $25^{\circ} E.$; ascend.
39.95	Set a sandstone, 24x15x5 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound, of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
56.50	Top of ridge, 300 ft. above hollow, bears N. and S.; descend.
64.60	Bottom of hollow, 300 ft. below ridge, course N.; ascend.
79.90	The cor. of secs. 10, 11, 14, and 15. Land, mountainous. Soil, sandy and grayelly; 3rd rate. No timber. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.90 chs.
	N. $0^{\circ} 01' W.$, bet. secs. 10 and 11. Over mountainous land; through dense undergrowth; ascend.

Subdivision of T.17 S., R.20 E.-Continued.

Chains	
12.00	Top of Mormon Ridge, 150 ft. above sec.cor., bears N. 40° E. and S. 40° W.; descend .
40.00	Set a limestone, 16x10x4 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impractic- able.
80.00	Set a sandstone, 15x10x8 ins., 10 ins. in the ground, for cor. of secs. 2, 3, 10, and 11, marked with 5 notches on S. and 2 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impractic- able.
	Land, mountainous.
	Soil, sandy and gravelly; 3rd rate.
	No timber.
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense under- growth, 80.00 chs.
	August 31, 1901: At the noon hour the sky is overcast and solar observations are impossible.

	S. 89° 59' E., on a random line bet. secs. 2 and 11.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
79.88	Intersect N. and S. line, 7 lks. S. of the cor. of secs. 1, 2, 11, and 12.
	Thence I run
	S. 89° 58' W., on a true line bet. secs. 2 and 11.
	Over mountainous land, through dense undergrowth; as- cend over ledges;
21.50	Top of Mormon Ridge, 300 ft. above sec.cor., bears N. 20° W. and S. 20° E.; leave ledges. Descend .
39.94	Set a limestone, 15x15x4 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impractic- able.

Subdivision of T.17 S., R.20 E.—Continued.

Chains	
68.00	Bottom of hollow, 300 ft. below ridge, course N.; ascend.
79.88	The cor. of secs. 2, 3, 10, and 11. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.88 chs.
	N. 0° 01' W., on a random line bet. secs. 2 and 3.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
79.94	Intersect N. bdy. of Tp., 5 lks. E., of the cor. of secs. 2, 3, 34, and 35, heretofore described. Thence I run S. 0° 03' E., on a true line bet. secs. 2 and 3. Over mountainous land; through scattering undergrowth; in bottom of Pioche Canon.
0.50	Pioche Creek, 6 lks. wide, 3 ins. deep, course N. 80° E.
0.55	Trail in canon, bears N. 80° E. and S. 80° W.
2.10	Leave canon bottom, bears N. 70° E. and S. 70° W.; ascend.
17.00	Top of ridge, 200 ft. above canon, bears N. 30° E. and S. 30° W.; thence along east side of ridge.
39.94	Set a limestone, 20x10x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
79.94	The cor. of secs. 2, 3, 10, and 11. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, 79.94 chs.

August 31, 1901.

Subdivision of T. 17 S., R. 20 E.-Continued.

Chains

September 2, 1901: At 7 h 3 m a.m., l.m.t., I set off $39^{\circ} 17' W.$, on the lat. arc; $8^{\circ} 05' N.$, on the decl. arc; and determine a true meridian, with the solar, at the cor. of secs. 3, 4, 33, and 34, bn S. bdy. of Tp., heretofore described.

Thence I run

$N. 0^{\circ} 02' W.$, bet. secs. 33 and 34.

Over mountainous land; through scattering timber; ascend.

40.00 Set a sandstone, 18x10x8 ins., 12 ins. in the ground, for 2 sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

40.25 Top of ridge, 200 ft. above sec. cor., bears N. $30^{\circ} E.$ and S. $30^{\circ} W.$; descend.

60.00 Set a sandstone, 30x24x5 ins., 22 ins. in the ground, for cor. of secs. 27, 28, 33, and 34, marked with 1 notch on S. and 3 notches on N. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Its impracticable.

Land, mountainous.

Soil, sandy loam; 2nd rate.

Timber, cedar and pine.

Good grass for grazing.

Mountainous land, 80.00 chs.

$N. 89^{\circ} 52' E.$, on a random line bet. secs. 27 and 34.

40.00 Set temp. 2 sec. cor.

72.86 Intersect N. and S. line, 12 lks. N. of the cor. of secs. 26, 27, 34, and 35.

Thence I run

$S. 89^{\circ} 57' W.$, on a true line bet. secs. 27 and 34.

Over mountainous land; through scattering timber and

Subdivision of T.17 S., R.20 E.-Continued.

	Chains scattering undergrowth; descend .
4.00	Foot of descent, 100 ft. below sec.cor., bears N.30°E. and S.30°W.; enter bottom of Willow Creek Canon. Enter dense willows and greasewood.
5.50	Willow Creek, 10 lks. wide, 4 ins. deep, course N.30°E.;
6.10	Trail in canon, bears N.30°E. and S.30°W.
9.25	Leave canon, bears N.50°E. and S.30°W.. leave willows and greasewood . Ascend abruptly .
39.93	Set a sandstone, 18x8x7 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
56.00	Top of ridge, 800 ft. above canon, bears N.30°E. and S. 30°W.; descend .
79.86	The cor.of secs.27,28,33, and 34. Land, mountainous. Soil, sandy and gravelly loam and rocky; 2nd and 4th rate. Timber; pine and cedar. Undergrowth,oak and sage brush. Good grass for grazing. Mountainous land,or land covered with dense undergrowth, 79.86 chs.
	N.0°02'W., betsecs.27 and 28. Over mountainous land; through dense undergrowth and scattering timber;descend .
7.00	Bottom of canon, 200 ft. below sec.cor., course N.E.; ascend .
40.00	Set a sandstone, 24x12x8 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; from which A pine, 12 ins.diam., bears N.30°E., 42 lks. dist., marked $\frac{1}{2}$ S.27,B.T. A pine, 24,ins.diam., bears W., 29 lks.dist., marked $\frac{1}{2}$ S.28,B.T.

Subdivision of T.17 S., R.20 E.-Continued.

Chains.

42.00 Top of ridge, 1000 ft. above canon, bears N.W. and S.E.; leave timber, bears with ridge, descend.

72.00 Bottom of hollow, 300 ft. below ridge, course S.E.; ascend.

80.00 Set a sandstone, 20x9x6 ins., 15 ins. in the ground, for cor. of secs. 21, 22, 27, and 28, marked with 2 notches on S. and 3 notches on E. edges; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

Land, mountainous.

Soil, sandy and gravelly loam and rocky; 2nd and 4th rate.

Timber, pine and cedar.

Undergrowth, oak and sage and deer brush.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth, 80.00 chs.

September 2, 1901: At this cor. I set off 7° 59' N., on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 38° 19' N.

N. 89° 57' E., on a random line bet. secs. 22 and 27.

40.00 Set temp. & sec.cor.

70.90 Intersect N. and S. line, 12 lks. N. of the cor. of secs. 22, 23, 26, and 27.

Thence I run

N. 89° 58' W., on a true line bet. secs. 22 and 27.

Over mountainous land; through scattering undergrowth, and scattering timber; ascend.

22.50 Top of ridge, 400 ft. above sec.cor., bears N. 25° E. and S. 25° W.; descend.

39.95 Set a sandstone, 18x16x5 ins., 12 ins. in the ground, for & sec.cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

Subdivision of T.17 S., R.20 E.-Continued.

Chains	ticable.
50.00	Bottom of hollow, 500 ft. below ridge, course S.; ascend.
73.50	Top of ridge, 500 ft. above hollow, bears N. and S.E.; leave timber, bears with ridge. Descend.
79.90	The cor. of secs. 21, 22, 27, and 28. Land, mountainous. Soil, sandy and gravelly loam and rocky; 2nd and 4th rate. Timber, pine and cedar. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, 79.90 chs.

N.0° 02' W., bet. secs. 21 and 22.

Over mountainous land; through scattering undergrowth.

Ascend.

23.50 Top of ridge, 100 ft. above sec. cor., bears N. 20° E. and S. 20° W. A corral bears West about 25.00 chs. dist.

Descend.

40.00 Set a limestone, 14x10x8 ins., 9 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

80.00 Set a limestone, 15x10x6 ins., 10 ins. in the ground, for cor. of secs. 15, 16, 21, and 22, marked 17 S. on N.E. and 20 E. on S.E. faces; with 3 notches on S. and 3 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, sandy and gravelly loam; 2nd rate.

No timber.

Undergrowth, oak and sage brush.

Good grass for grazing.

Mountainous land, 80.00 chs.

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Subdivision of T. 17 S., R. 20 E.-Continued.

Chains September 2, 1901: At this cor. I set off $39^{\circ} 20' N.$, on the lat.arc; $7^{\circ} 56' N.$, on the decl.arc; and at 4 h 30 m p.m., l. m.t., determine a true meridian, with the solar and mark a point thereof on a stone, firmly set in the ground, 5.00 chs.N. of cor.

At 8 h 41 m p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark a point in the line thus determined, by a tack driven in a wooden plug, set in the ground, east of the stone already set 5.00 chs.N. of the cor.

September 2, 1901.

September 3, 1901: At 6 h 30 m a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ} 34.5'$ to the west, and mark a point in the true meridian thus determined, by cutting a small groove in the stone, already set 5.00 chs.N. of the cor.; this mark falls 0.30 ins. east of the true meridian, established by the solar.

At 7 h 3 m a.m., l.m.t., I set off $39^{\circ} 20' N.$, on the lat.arc; $7^{\circ} 41' N.$, on the decl.arc; and mark a point in the true meridian determined with the solar, by a cross on the stone already set 5.00 chs.N. of the cor.; this mark falls 0.25 ins. east of the true meridian established by Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for true meridians respectively about $0'16''$ west and $0'13''$ east of the true meridian established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 7 h 30 a.m., is $15^{\circ} 52.7' W.$, the angle thus determined reduced by the table page 100 of the Manual, gives the mean mag.decl. $15^{\circ} 49' E.$.

From the cor. of secs. 15, 16, 21, and 22,

Subdivision of T.17 S., R.20 E.-Continued.

Chains I run

S.89° 58'E., on a random line bet. secs. 15 and 22.

40.00 Set temp. $\frac{1}{4}$ sec.cor.

80.00 Intersect N. and S. line, at the cor. of secs. 14, 15, 22, and 23.

Thence I run

N.89° 58'W., on a true line bet. secs. 15 and 22.

Over mountainous land, through scattering undergrowth; ascend.

20.00 Top of Mormon Ridge, 100 ft. above sec.cor., bears N. and S.; descend.

40.00 Set a sandstone, 30x12x8 ins., 22 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

49.50 Spring branch, 3 lks. wide, 1 in. deep, in bottom of hollow, 350 ft. below ridge, course N.; ascend.

71.00 Top of ridge, 300 ft. above hollow, bears N. and S.; descend.

80.00 The cor. of secs. 15, 16, 21, and 22.

Land, mountainous.

Soil, sandy and gravelly; 3rd rate.

No timber.

Undergrowth, oak and sage brush.

Good grass for grazing.

Mountainous land, 80.00 chs.

N.0° 02'W., bet. secs. 15 and 16.

Over mountainous land; through scattering undergrowth; descend gradually along west slope of ridge..

40.00 Set a sandstone, 20x10x8 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

80.00 Set a sandstone, 20x10x8 ins., 15 ins. in the ground, for

Subdivision of T.17 S., R.20 E.-Continued.

	Chains	cor.of secs.9,10,15, and 16,marked with 4 notches on S.and 3 notches on E.edges;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable..
		Land,mountainous.
		Soil,sandy and gravelly loam;2nd rate.
		No timber.
		Undergrowth,oak and sage brush.
		Good grass for grazing.
		Mountainous land,80.00 chs..

		S. $89^{\circ} 58' E.$,on a random line betsecs.10 and 15.
40.00	Set temp. $\frac{1}{4}$ sec.cor.	
79.94	Intersect N.and S.line,5 lks.S.of the cor.of secs.10,11,14, and 15..	
		Thence I run
		West, on a true line betsecs.10 and 15.
		Over mountainous land;through dense undergrowth;ascend .
10.00	Top of Mormon Ridge,100 ft.above sec.cor.,bears N.E. and S.W.;descend .	
39.97	Set a sandstone,18x12x6 ins.,12 ins.in the ground, for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on N.face;and raise a mound of stone,2ft.base, $1\frac{1}{2}$ ft.high,N.of cor.Pits impracticable.	
40.20	Creek,2 lks.wide,1 in.deep,in hollow,course N.;ascend .	
58.50	Top of ridge,400 ft.above hollow,bears N.and S.;descend .	
79.94	The cor.of secs.9,10,15, and 16..	
		Land,mountainous.
		Soil,sandy and gravelly loam;2nd rate.
		No timber.
		Undergrowth,oak and sage brush.
		Good grass for grazing.

Subdivision of T.17 S., R.20 E. -Continued.

Chains Mountainous land, or land covered with dense undergrowth, 79.94 chs.

September 3, 1901: At this cor. I set off $7^{\circ} 38' N.$, on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ} 21' N.$

N. $0^{\circ} 02' W.$, bet. secs. 9 and 10.

Over mountainous land; through scattering undergrowth; ascend gradually.

25.00 Bottom of hollow, 300 ft. below sec. cor., course W.; ascend through scattering timber, bears with hollow.

40.00 Falls on stationary boulder, 6x5x4 ft. above ground, on which I cut a cross at the exact cor. point for $\frac{1}{4}$ sec. cor., marked π on W. face; from which

A pine, 22 ins. diam., bears E., 40 lks. dist., marked $\pm S.10, B.T.$

A pine, 8 ins. diam., bears S. $80^{\circ} W.$, 20 lks. dist., marked $\frac{1}{4} S.9, B.T.$

45.00 Top of ridge, 200 ft. above hollow, bears N.E. and S.W.; descend.

80.00 Falls on stationary boulder, 2x2x1 ft. above ground, on which I cut a cross at the exact cor. point for cor. of secs. 3, 4, 9, and 10, marked with 5 notches on S. and 3 notches on E. edges; from which

A pinion pine, 20 ins. diam., bears N. $20^{\circ} E.$, 65 lks. dist., marked T.17 S., R.20 E., S.3, B.T.

A pinion pine, 8 ins. diam., bears S. $65^{\circ} E.$, 35 lks. dist., marked T.17 S., R.20 E., S.10, B.T.

A pinion pine, 14 ins. diam., bears S. $80^{\circ} W.$, 5 lks. dist., marked T.17 S., R.20 E., S.9, B.T.

A pinion pine, 14 ins. diam., bears N. $45^{\circ} W.$, 75 lks. dist., marked T.17 S., R.20 E., S.4, B.T.

Land, mountainous.

Soil, sandy and gravelly loam and rocky; 2nd and 4th rate.

Subdivision of T. 17 S., R. 20 E.-Continued.

Chains	Timber, pine and cedar. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, 80.00 chs.
40.00	East, on a random line bet. secs. 3 and 10. Set temp. $\frac{1}{2}$ sec. cor.
79.96	Intersect. N. and S. line, at the cor. of secs. 2, 3, 10, and 11. Thence I run West, on a true line bet. secs. 3 and 10. Over mountainous land; through scattering timber and scattering undergrowth; ascend .
11.25	Top of ridge, 200 ft. above sec. cor., bears N. and S.; descend .
37.00	Creek, 2 lks. wide, 1 in. deep, in hollow, 400 ft. below ridge, course N.; ascend .
39.96	Set a sandstone, 18x12x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise amount of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
55.00	Top of ridge, 400 ft. above hollow, bears N. and S.; descend .
79.96	The cor. of secs. 3, 4, 9, and 10. Land, mountainous. Soil, sandy and gravelly loam; 2nd rate. Timber, pine and open and cedar. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, 79.96 chs.
40.00	N. $0^{\circ}02'W.$, on a random line bet. secs. 3 and 4. Set temp. $\frac{1}{2}$ sec. cor.
80.00	Intersect. N. bdy. of Tp., at the cor. of secs. 3, 4, 33, and

Subdivision of T. 17 S., R. 20 E. -Continued.

Chains 34, heretofore described.

Thence I run

S. $0^{\circ}02' E.$, or a true line bet. secs. 3 and 4.

Over mountainous land; through scattering timber and scattering undergrowth; descend.

40.00 Set a sandstone, 18x8x7 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

59.50 Foot of descent, 500 ft. below sec. cor., bears N.E. and S.W.; enter bottom of Pioche Canon.

62.75 Pioche Creek, 6 lks. wide, 3 ins. deep, in bottom of Pioche Canon, course N..E.

63.00 Trail in canon, bears N.E. and S.W.

67.00 Leave canon bottom, bears N.E. and S.W.; ascend.

80.00 The cor. of secs. 3, 4, 9, and 10.

Land, mountainous.

Soil, sandy and gravelly and rocky; 3rd and 4th rate.

Timber, pine and cedar.

Undergrowth, oak and sage brush.

Good grass for grazing.

Mountainous land, 80.00 chs.

September 3, 1901.

September 4, 1901: At 7 h 30 m a.m., l.m.t., I set off $39^{\circ}17' N.$, on the lat. arc; $7^{\circ}20' N.$, on the decl. arc; and determine a true meridian with the solar, at the cor. of secs. 4, 5, 32, and 33, heretofore described.

Thence I run

N. $0^{\circ}03' W.$, bet. secs. 32 and 33.

Over mountainous land; through scattering timber and scattering undergrowth; ascend.

5.50 Top of Mormon Ridge, 50 ft. above sec. cor., bears N. $30^{\circ} E.$ and S. $30^{\circ} W.$; descend.

40.00 Set a sandstone, 16x10x6 ins., 11 ins. in the ground, for

Subdivision of T.17 S., R.20 E. -Continued.

Chains	$\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; from which An aspen, 6 ins. diam., bears N.10° E., 140 lks. dist., marked $\frac{1}{4}$ S.33, B.T. An aspen, 6 ins. diam., bears N.20° W., 93 lks. dist., marked $\frac{1}{4}$ S.32, B.T.
65.00	Begin steep descent, bears N.E. and S.W.
80.00	Set a sandstone, 24x14x5 ins., 18 ins. in the ground, for cor. of secs. 28, 29, 32, and 33, marked with 1 notch on S. and 4 notches on E.edges; from which An aspen, 5 ins. diam., bears N.50° E., 10 lks. dist., marked T.17 S., R.20 E., S.28, B.T. An aspen, 6 ins. diam., bears S.10° E., 36 lks. dist., marked T.17 S., R.20 E., S.33, B.T. An aspen, 6 ins. diam., bears S.23° W., 39 lks. dist., marked T.17 S., R.20 E., S.32, B.T. An aspen, 6 ins. diam., bears N.30° W., 13 lks. dist., marked T.17 S., R.20 E., S.29, B.T.
	Land, mountainous.
	Soil, sandy loam; 2nd rate.
	Timber, pine, aspen and cedar.
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	Mountainous land, 80.00 chs.
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40.00	N.89° 52' E., on a random line bet. secs. 28 and 33. Set temp. $\frac{1}{4}$ sec.cor.
80.00	Intersect N. and S. line, 15 lks. N. of the cor. of secs. 27, 28, 33, and 34. Thence I run
	S.89° 58' W., on a true line bet. secs. 28 and 33. Over mountainous land; through scattering undergrowth, descend.
6.50	Bottom of canon, 150 ft. below sec.cor., course N.E.; ascend through scattering timber.
40.00	Set a sandstone, 16x10x5 ins., 11 ins. in the ground, for

Subdivision of T.17 S., R.20 E.-Continued.

Chains	$\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; from which a pine, 8 ins. diam., bears S. 10° E., 40 lks. dist., marked $\frac{1}{4}$ S.33,B.T. No other trees within limits; raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor.Pits impracticable.
49.00	Top of ridge, 800 ft. above canon, bears N. 20° E. and S. 20° W.; this is Mormon Ridge . Descend .
65.10	Begin abrupt descent, bears N.E. and S.W.
80.00	The cor.of secs.28,29,32, and 33. Land, mountainous. Soil, sandy loam; 2nd rate. Timber, pine and cedar. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, 80.00 chs.
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	N. $0^{\circ}03'$ W., betsecs.28 and 29. Over mountainous land; through scattering timber and scattering undergrowth; descend abruptly .
30.00	Foot of descent, 300 ft. below sec.cor., bears N. 10° E. and S. 10° W.; enter bottom of Pioche Canon . Enter dense willows .
40.00	Set a sandstone, 16x10x6 ins., 11 ins.in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; from which An aspen, 10 ins. diam., bears S. 70° E., 68 lks. dist., marked $\frac{1}{4}$ S.28,B.T. A willow, 6 ins. diam., bears S. 70° W., 75 lks. dist., marked $\frac{1}{4}$ S.29,B.T.
56.50	Pioche Creek, 10 lks.wide, rapid current, course N. 10° E..
65.00	Trail in canon, bears N. 10° E. and S. 10° W.
69.00	Leave canon bottom, bears N. 10° E. and S. 10° W.; leave willows . Ascend .
80.00	Set a sandstone, 24x8x8 ins., 18 ins.in the ground, for cor.of secs.20,21,28, and 29,marked with 2 notches on

Subdivision of T.17 S., R.20 E. -Continued.

Chains	S. and 4 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
	Land, mountainous and level canon bottom.
	Soil, sandy loam and rocky; 2nd and 4th rate.
	Timber, pine and aspen.
	Undergrowth, oak, sage, and willows.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	September 4, 1901: At this cor. I set off $7^{\circ}15'N.$, on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ}19'N.$
	<hr/>
	N. $89^{\circ}58'W.$, on a random line bet. secs. 21 and 28.
40.00	Set temp. $\frac{1}{2}$ sec.cor.
79.98	Intersect N. and S. line, at the cor. of secs. 21, 22, 27, and 28. Thence I run S. $89^{\circ}58'W.$, on a true line bet. secs. 21 and 28. Over mountainous land; through scattering undergrowth; ascend.
11.50	Top of Mormon Ridge, 100 ft. above sec.cor., bears N. $25^{\circ}E.$ and S. $25^{\circ}W.$; descend.
30.00	Enter scattering timber, bears N. and S.
39.99	Set a sandstone, 15x8x6 ins., 10 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; from which An aspen, 8 ins. diam., bears N. $40^{\circ}E.$, 75 lks. dist., marked $\frac{1}{2}$ S. 21, B.T. An aspen, 8 ins. diam., bears S., 50 lks. dist., marked $\frac{1}{2}$ S. 28, B.T.
68.50	Foot of descent, 800 ft. below ridge, bears N. $20^{\circ}E.$ and S. $20^{\circ}W.$; enter bottom of Pioche Canon. Enter dense willows.
74.25	Pioche Creek, 9 lks. wide, 4 ins. deep, course N. $20^{\circ}E.$

Subdivision of T.17 S.36 E.-Continued.

Chains

75.50 Trail in canon,bears N.20°E.and S.20°W.

76.50 Leaves canon bottom,bears N.20°E.and S.20°W.;leave willows .Ascend .

- 78.96 The cor.of secs.20,21,28, and 29.

Land,mountainous.

Soil,sandy and gravelly loam;2nd rate.

Timber,pine and aspen and cedar.

Undergrowth,oak,sage, and willows.

Good grass for grazing.

Mountainous land,or land covered with dense under-growth,79.98 chs.

N.0°03'W.,betsecs.20 and 21.

Over mountainous land;through scattering timber and scattering undergrowth;ascend .

40.00 Set a sandstone,18x12x4 ins.,12 ins.in the ground,for cor.,marked $\frac{1}{2}$ on W.face;from which

 A pinion pine,8 ins.diam.,bears S.40°E.,83 lks.dist.,marked $\frac{1}{2}$ S.21,B.T.

 A pinion pine,24 ins.diam.,bears S.30°W.,50 lks.dist.,marked $\frac{1}{2}$ S.20,B.T.

40.50 Top of ridge,600 ft.above sec.cor.,bears E.and W.; descend .

43.00 Bottom of hollow,500 ft.below ridge,course E.;ascend.

57.00 Top of ridge,400 ft.above hollow,bears E.and W.;descend .

65.00 Bottom of hollow,420 ft.below ridge,course E.;ascend.

72.00 Top of ridge,400 ft.above hollow,bears E.and W.;descend .

80.00 Set a sandstone,20x14x4 ins.,15 ins.in the ground,for cor.of secs.16,17,20, and 21,marked with 3 notches on N.and 4 notches on E.edges;from which

 A red pine,14 ins.diam.,bears N.60°E.,120 lks.dist.,marked T.17 S.,n.20 E.,S.16,B.T.

Subdivision of T.17 S., R.20 W.-Continued.

Chains A red pine, 10 ins. diam., bears S.70°E., 100 lks. dist., marked T.17 S., R.20 E., S.21, S.T.
A long leaf pine, 40 ins. diam., bears S.70°E., 160 lks. dist., marked T.17 S., R.20 E., S.20, S.T.
A red pine, 6 ins. diam., bears N.68°W., 101 lks. dist., marked T.17 S., R.20 E., S.17, S.T.
Land, mountainous.
Soil, sandy and gravelly loam and rocky; 2nd and 4th rate.
Timber, pine, aspen, and cedar.
Undergrowth, oak and sage brush.
Good grass for grazing.
Mountainous land, 80.00 chs.

-
- N.89°58'E., on a random line bet. secs. 16 and 21.
40.00 Set temp. $\frac{1}{2}$ sec. cor.
79.90 Intersect N. and S. line, 15 lks. S. of the cor. of secs. 15, 16, 21, and 22.
Thence I run
S.89°52'W., on a true line bet. secs. 16 and 21.
Over mountainous land; through scattering undergrowth; descend.
23.00 Bottom of hollow, 400 ft. below sec. cor., course N.; ascend.
34.50 Top of ridge, 300 ft. above hollow, bears N. and S.; descend.
39.25 Set a sandstone, 18x10x5 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, North of cor. Fits impracticable.
43.50 Foot of descent, 500 ft. below ridge, bears N.20°E. and S.20°W.; enter bottom of Pioche Canon.
46.00 Pioche Creek, 8 lks. wide, 3 ins. deep, rapid current, gravelly bottom, course N.20°E.
46.25 Trail in canon, bears N.20°E. and S.20°W.

Subdivision of T.17 S., R.20 E.-Continued.

Chains.	
48.00	Leave canon bottom, bears N. 20° E. and S. 20° W.; ascend gradually.
79.90	The cor. of secs. 16, 17, 20, and 21. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, 79 . 90 chs.

September 4, 1901.

September 5, 1901: At 7 h 2 m a.m., l.m.t., I set off 39°
20' N., on the lat. arc; 6° 59' N., on the decl. arc; and de-
termine a true meridian, with the solar, at the cor. of
secs. 16, 17, 20, and 21.

Thence I run

N. $0^{\circ}03'$ W., bet. secs. 16 and 17 ..

Over mountainous land; through scattering timber and
dense undergrowth; descend .

0.30 Bottom of hollow, 10 ft. below sec.cor., course E.; as-
cend .

40.00 Set a sandstone, 20x15x4 ins., 15 ins. in the ground, for
 $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W. face; and raise a mound of
stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impractic-
able.

50.00 Top of divide ridge, between Pioche and Hill Creek-
canons, 500 ft. above hollow, bears N. 10° E. and S. 30° W.;
old Indian trail on top of ridge . Descend gradually.

80.00 Set a sandstone, 20x10x5 ins., 15 ins. in the ground,
for cor. of secs. 8, 9, 16, and 17, marked with 4 notches
on S. and 4 notches on E. edges; and raise a mound of
stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impractic-
able.

Land, mountainous.

Subdivision of T.17 S., R.20 E.-Continued.

Chains	Soil, sandy loam and rocky; 2nd and 4th rate. Timber, pine, aspen and cedar. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, 80.00 chs.
	N.89° 52' E., on a random line bet. secs. 9 and 16.
40.00	Set temp. $\frac{1}{2}$ sec. cor.,
79.84	Intersect N. and S. line, 11 lks. N. of the cor. of secs. 9, 10, 15, and 16. Thence I run S.89° 56' W., on a true line bet. secs. 9 and 16. Over mountainous land; through scattering undergrowth; descend.
32.00	Foot of descent, 700 ft. below sec. cor., bears N.5° E. and S.5° W.; enter bottom of Pioche Canon.
34.00	Pioche Creek, 6 lks. wide, 3 ins. deep, course N.5° E.
35.00	Trail, in canon, bears N.5° E. and S.5° W.
36.00	Leave canon bottom, bears N.5° E. and S.5° W.; ascend.
39.92	Set a sandstone, 18x9x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
73.15	Top of Divide Ridge, 800 ft. above canon, bears N.10° E. and S.10° W. Old Indian trail on top bears with ridge.
79.84	The cor. of secs. 8, 9, 16, and 17. Land, mountainous. Soil, sandy loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, 79.84 chs.
	N.0° 03' W., bet. secs. 8 and 9. Over mountainous land; through scattering undergrowth;

Subdivision of T.17 S., R.20 E.-Continued.

- Chains descend gradually along west slope of mountain.
- 40.00 Set a sandstone, 18x10x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
- 80.00 Set a sandstone, 18x12x5 ins., 12 ins. in the ground, for cor.of secs. 4, 5, 8, and 9, marked with 5 notches on S. and 4 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
- Land, mountainous.
- Soil, sandy and gravelly loam and rocky; 2nd and 4th rate.
- No timber.
- Undergrowth, oak and sage brush.
- Good grass for grazing.
- Mountainous land, 80.00 chs.
- September 5, 1901: At the noon hour the sky is overcast and solar observations are impossible.

-
- N. $89^{\circ} 56' E.$, on a random line bet.secs. 4 and 9.
- 40.00 Set temp. $\frac{1}{4}$ sec.cor.
- 60.04 Intersect N.and S.line, 15 lks.S.of the cor.of secs. 3, 4, 9, and 10.
- Thence I run
- S. $89^{\circ} 50' W.$, on a true line bet.secs. 4 and 9.
- Over mountainous land; through dense undergrowth and scattering timber; descend.
- 12.00 Foot of descent, 500 ft. below sec.cor., bears N. $30^{\circ} E.$ and S. $30^{\circ} W.$; enter bottom of Pioche Canon.
- 15.00 Pioche Creek, 6 lks.wide, 3 ins.deep, sandy bottom, rapid current, course N. $30^{\circ} E.$.
- 15.25 Trail in canon, bears N. $30^{\circ} E.$ and S. $30^{\circ} W.$.
- 18.00 Leave canon bottom, bears N. $30^{\circ} E.$ and S. $30^{\circ} W.$; ascend.
- 32.50 Top of ridge, 400 ft.above canon, bears N.W. and S.E.; descend.

Subdivision of T. 17 S., R. 20 E.-Continued.

Chains	
40.02	Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impractic- able.
42.75	Bottom of hollow, 150 ft. below ridge, course S.E.; as- cend.
57.00	Top of Divide Ridge, 300 ft. above hollow, bears N.10°W. and S.10°E.; Trail on top of ridge, bears with ridge. Descend.
80.04	The cor. of secs. 4, 5, 8, and 9. Land, mountainous. Soil, sandy and gravelly loam and rocky; 2nd and 4th rate. Timber, cedar and pinion pine. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense under- growth, 80.04 chs.

	N.0°03'W., on a random line bet. secs. 4 and 5.
40.00	Set temp. $\frac{1}{2}$ sec.cor.
80.12	Intersect N.bdy. of Tp., 5 lks.E. of the cor. of secs. 4, 5, 32, and 33, heretofore described. Thence I run S.0°5'E., on a true line bet. secs. 4 and 5. Over mountainous land, through scattering timber and scattering undergrowth; ascend.
10.00	Top of ridge, 100 ft. above sec.cor., bears E. and W.; descend.
40.12	Set a limestone, 16x10x6 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; from which A pinion pine, 10 ins. diam., bears N.30°E., 85 lks.dist., marked $\frac{1}{2}$ S.4,B.T. A pinion pine, 18 ins. diam., bears N.68°W., 30 lks.dist., marked $\frac{1}{2}$ S.5,B.T.

Subdivision of T.17 S., R.20 E.-Continued.

Chains	
80.12	The cor.of secs.4,5,8, and 9. Land,mountainous. Soil,sandy and gravelly;3rd rate. Timber,pine and cedar. Undergrowth,oak and sage brush. Good grass for grazing. Mountainous land,80.12 chs.

September 5, 1901

September 6, 1901:At 7,h 30 m a.m.,l.m.t., I set off $39^{\circ}17'N.$,on the lat.arc; $6^{\circ}36'N.$,on the decl.arc;and determine a true meridian,with the solar,at the cor. of secs.5,6,31, and 32,heretofore described, on S.bdy. of Tp.

Thence I run

N. $0^{\circ}03'W.$,betsecs.31and 32.

Over mountainous land;through dense undergrowth;ascend .

- 17.00 Top of ridge,250 ft.above sec.cor.,bears N. $20^{\circ}W.$ and S. $20^{\circ}E.$;descend .
- 35.00 Bottom of hollow,150 ft.below ridge,course E.;ascend.
- 40.00 Set a limestone,16x10x8 ins.,11 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{2}$ on W.face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
- 80.00 Set a sandstone,18x9x7 ins.,12 ins.in the ground,for cor.of secs.29,30,31, and 32,marked with 1 notch on S.and 5 notches on E.edges;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
- Land,mountainous.
- Soil,sandy and gravelly loam and rocky;2nd and 4th rate.
- No timber.

Subdivision of T.17 S., R.20 E.-Continued.

Chains	<p>Undergrowth, oak and sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.00 chs.</p>
	<p>N. 89° 52' E., on a random line bet. secs. 29 and 32.</p>
40.00	<p>Set temp. $\frac{1}{4}$ sec. cor..</p>
79.90	<p>Intersect N. and S. line, 10 lks. N. of the cor. of secs. 28, 29, 32, and 33.</p> <p>Thence I run</p> <p>S. 89° 50' W., on a true line bet. secs. 29 and 32.</p> <p>Over mountainous land; through scattering timber and scattering undergrowth; descend.</p>
17.50	<p>Foot of descent, 300 ft. below sec. cor., bears N. 20° E. and S. 20° W.; enter bottom of Pioche Canon. Enter dense willows.</p>
21.00	<p>Pioche Creek, 10 lks. wide, 5 ins. deep, sandy bottom, rapid current, course N. 20° E. Leave willows.</p>
21.30	<p>Trail in canon, bears N. 20° E. and S. 20° W.</p>
24.50	<p>Leave canon, bottom, bears N. 18° E. and S. 18° W.; ascend.</p>
39.95	<p>Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, 1$\frac{1}{2}$ ft. high, N. of cor. Its impracticable.</p>
79.90	<p>The cor. of secs. 29, 30, 31, and 32.</p> <p>Land, mountainous.</p> <p>Soil, sandy and gravelly loam and rocky; 2nd and 4th rate.</p> <p>Timber, pine and cedar.</p> <p>Undergrowth, oak and sage brush and willows.</p> <p>Good grass for grazing.</p> <p>Mountainous land, 79.90 chs.</p>
	<p>S. 89° 52' W., on a random line bet. secs. 30 and 31.</p>

Subdivision of T.17 S., R.20 E.-Continued.

contains	
40.00	Set temp. $\frac{1}{4}$ sec.cor.
79.72	intersect w.bdy. of Tp., 19 lks.S. of the cor.of secs. 29,30,31, and 32, heretofore described. hence run ✓ East, on a true line bet.secs.30 and 31. over mountainous land, through dense undergrowth and scattering timber; ascend .
15.00	top of ridge, 200 ft. above sec.cor., bears N.50° W., and S.50° E. Old Indian trail on top or ridge. Descend .
25.50	Bottom of hollow, 100 ft. below ridge, course N.20° E.; ascend .
36.00	Top of ridge, 100 ft. above hollow, bears N.25° E., and S.25° W. ;descend .
39.72	Set a limestone, 15x14x4. ins., 10 ins.in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face;from which An aspen, 4 ins.diam., bears N.25° W., 20 lks. dist.,marked $\frac{1}{4}$ S.50,B.T. An aspen, 7 ins.diam., bears S.30° E., 33 lks. dist.,marked $\frac{1}{4}$ S.31,B.T.
44.00	bottom of hollow, 75. ft. below ridge, course N.20° E.; ascend .
55.00	Top of Divide Ridge , 150 ft. above hollow , bears N.E. and S.W.; Old Indian trail on top bears with ridge;descend.
79.72	the cor.of secs.29,30,31, and 32. land, mountainous. Soil, sandy and gravelly loam and rocky;2nd and 4th rate. Timber, cedar , pine and aspen. Undergrowth,oak and sage brush and aspen saplings. Good grass for grazing. mountainous land,or land covered with dense under- growth,79.72 cns .
	September 6,1901:At this cor. I set off 6-31' N.,on the decl.arc;and at 0 n 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39° 18' N..

Subdivision of T. 17 S., R. 20 E. -Continued.

	Chains N. 0° 03' W., bet. secs. 29 and 30. Over mountainous land; through scattering timber and scattering undergrowth; ascend.
20.50	Top of divide ridge, 250 ft. above sec. cor., bears N. 25° E. and S. 25° W.; trail on top; descend.
40.00	Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
74.00	Bottom of canon, 200 ft. below ridge, course N.E.; ascend.
80.00	Set a sandstone, 16x5x6 ins., 11 ins. in the ground, for cor. cor. of secs. 19, 20, 29, and 30, marked with 2 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy and gravelly loam; 2nd rate. Timber, pine and aspen. Undergrowth, sage brush, oak and sapen saplings. Good grass for grazing. Mountainous land, 80.00 chs.

	N. 89° 56' E., on a random line bet. secs. 20 and 29.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.84	Intersect N. and S. line, 24 lks. N. of the cor. of secs. 20, 21, 28, and 29. Thence I run N. 89° 54' W., on a true line bet. secs. 20 and 29. Over mountainous land; through scattering timber and scattering undergrowth; ascend.
39.92	Set a sandstone, 20x10x5 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
50.00	Top of Divide ridge between Pioche and Hill Creek

Subdivision of T. 17 S., R. 20 E., - Continued.

Chains	canons, 800 ft. above sec.cor., bears N.20°E. and S.30°W. Trail on top of ridge; descend .
74.00	Bottom of canon, 450 ft. below ridge, course N.20°E.; ascend .
79.84	The cor.of secs.19,20,29, and 30. Land,mountainous. Soil,sandy loam and gravelly;2nd and 3rd rate. Timber,pine,aspen and cedar. Undergrowth,oak and sage brush and aspen saplings. Good grass for grazing. Mountainous land,79.84 chs.
	West, on a random line bet.secs.19 and 30.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
79.75	Intersect W.bdy.of Tp.,27 lks.S.of the cor.of secs. 19,24,25, and 30, heretofore described. Thence I run S.89°48'E., on a true line bet.secs.19 and 30. Over mountainous land;through heavy timber and scattering undergrowth;descend .
2.50	Bottom of hollow,25 ft. below sec.cor.,course N.10°W.; trail in bottom bears with hollow.Ascend.
12.00	Leave heavy and enter scattering timber,bears N.and S.
23.50	Top of ridge,300 ft. above hollow,bears N.and S.;Main trail to Thompsons on top of ridge. Descend .
39.75	Set a sandstone,18x8x6 ins.,12 ins.in the ground,for sec.cor.,marked $\frac{1}{4}$ on N.face;and raise a mound of stone, 2 ft.base,1 $\frac{1}{2}$ ft.high,N.of cor.Pits impracticable.
61.50	Bottom of canon,300 ft. below ridge,course N.25°E.Enter heavy timber,bears N.25°E. and S.25°W.;ascend .
70.00	Leave timber,bears N.and S.
75.00	Top of ridge,150 ft. above canon,bears N.5°E. and S.5°W.; descend .
79.75	The cor.of secs.19,20,29, and 30.

Subdivision of T.17 S., R.20 E.-Continued.

Chains Land, mountainous.
Soil, sandy loam and gravelly; 2nd and 3rd rate.
Timber, pine and aspen.
Undergrowth, oak and sage brush and aspen saplings.
Good grass for grazing.
Mountainous or heavily timbered land; 79.75 chs.

September 6, 1901

September 7, 1901: At 7 h 30 m a.m.l.m.t., I set off $39^{\circ}19'N.$, on the lat.arc; $6^{\circ}15'N.$, on the decl.arc; and determine a true meridian, with the solar, at the cor. of secs. 19, 20, 29, and 30.

Thence I run

N. $0^{\circ}03'W.$, bet. secs. 19 and 20.

Over mountainous land; through dense undergrowth; ascend.

- 12.50 Top of ridge, 100 ft. above sec.cor., bears N. $40^{\circ}E.$ and S. $40^{\circ}W.$; descend through scattering timber, bears with ridge.
- 23.50 Bottom of hollow, 100 ft. below ridge, course N.E.; ascend.
- 40.00 Set a sandstone, 24x12x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, $\frac{1}{4}$ of cor. Pits impracticable.
- 67.50 Top of ridge, 400 ft. above hollow, bears N. $30^{\circ}E.$ and S. $30^{\circ}W.$; descend.
- 80.00 Set a limestone, 24x12x4 ins., 18 ins. in the ground, for cor.of secs. 17, 18, 19, and 20, marked with 3 notches on S. and 5 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, $\frac{1}{4}$ of cor. Pits impracticable.
- Land, mountainous.
Soil, sandy aand gravelly loam; 2nd rate.
Timber, pine and aspen.
Undergrowth, oak and sage brush and aspen saplings.
Good grass for grazing.

Subdivision of T.17 S., R.20 E.-Continued:

Chains Mountainous land, or land covered with dense under-growth, 80.00 chs.

S.89° 54' E., on a random line bet. secs. 17 and 20.

40.00 Set temp. $\frac{1}{2}$ sec. cor.

79.96 Intersect N. and S. line, 10 lks. N. of the cor. of secs.

16, 17, 20, and 21.

Thence I run

N.89° 50' W., on a true line bet. secs. 17 and 20.

Over mountainous land; through scattering timber; ascend.

15.00 Top of divide ridge, between Pioche and Hill Creek canon, 200 ft. above sec. cor., bears N.25° E. and S.25° W.; Old Indian trail on top of ridge. Enter dense undergrowth, bears with ridge. Descend.

35.00 A large spring bears N.25 lks. dist.

39.98 Set a sandstone, 18x8x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; from which

An aspen, 5 ins. diam., bears N.25° E., 50 lks.

dist., marked $\frac{1}{2}$. S.17, B.T. . . .

An aspen, 5 ins. diam., bears S.35° W., 120 lks.

dist., marked $\frac{1}{2}$ S.20, B.T.

41.50 Bottom of canon, 400 ft. below ridge; course N.55° E.; ascend.

74.00 Top of ridge, 500 ft. above canon, bears N.E. and S.20° W. Descend.

79.96 The cor. of secs. 17, 18, 19, and 20.

Land, mountainous.

Soil, sandy and gravelly loam; 2nd rate.

Timber, pine and aspen.

Undergrowth, oak and sage brush and aspen saplings.

Good grass for grazing.

Mountainous land, or land covered with dense under-growth, 79.96 chs.

Subdivision of T. 17 S., R. 20 E. -Continued.

Chains	
	N. $89^{\circ} 48' W.$, on a random line bet. secs. 18 and 19.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.96	Intersect W. bdy. of Tp., 19 lks. S. of the cor. of secs. 13, 18, 19, and 24, heretofore described. Thence I run $S.89^{\circ} 40' E.$, on a true line bet. secs. 18 and 19. Over mountainous land; through scattering undergrowth; ascend .
10.00	Top of ridge, 100 ft. above sec. cor., bears N. and S. 20° E.; descend .
19.75	Bottom of hollow, 150 ft. below ridge, course N.; as- cend .
24.00	Top of ridge, 150 ft. above hollow, bears N. and S.; des- cend .
32.00	Bottom of hollow, 200 ft. below ridge, course N.; as- cend .
39.96	Top of ridge, 300 ft. above hollow, bears N. and S. Set a limestone, 20x14x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impractic- able. Descend .
55.60	Bottom of canon, 400 ft. below ridge, course N. 35° E. Main trail to Thompsons in bottom . Ascend .
70.00	Top of ridge, 200 ft. above canon, bears N. 30° E. and S. 30° W.; descend .
75.00	Bottom of hollow, 100 ft. below ridge, course N. 30° E.; ascend .
- 79.96	The cor. of secs. 17, 18, 19, and 20. Land, mountainous. Soil, sandy and gravelly loam; 2nd rate. No timber. Undergrowth, oak and sage brush and aspen saplings. Good grass for grazing. Mountainous land, 79.96 chs.

Subdivision of T.17 S., R.20 E. -Continued.

Chains	<p>September 7, 1901: At this cor. I set off $6^{\circ}09'N.$, on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ}20'N.$</p> <hr/> <p>N.$0^{\circ}03'W.$, bet. secs. 17 and 18.</p> <p>Over mountainous land; through dense undergrowth; descend .</p>
21.50	<p>Bottom of hollow, 150 ft. below sec. cor., course N.$25^{\circ}E.$. Ascend .</p>
40.00	<p>Set a sandstone, 16x8x6 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked \pm on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p>
45.50	<p>Top of ridge, 50 ft. above hollow, bears N.$25^{\circ}E.$ and S.$25^{\circ}W.$; descend .</p>
61.70	<p>Bottom of canon, 100 ft. below ridge, course N.$40^{\circ}E.$; main trail to Thompsons in bottom . Ascend .</p>
80.00	<p>Set a limestone, 15x9x4 ins., 10 ins. in the ground, for cor. of secs. 7, 8, 17, and 18, marked with 4 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p> <p>Land, mountainous.</p> <p>Soil, sandy loam and gravelly; 2nd and 3rd rate.</p> <p>No timber.</p> <p>Undergrowth, oak and sage brush .</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.00 chs.</p> <hr/> <p>S.$89^{\circ}50'E.$, on a random line bet. secs. 8 and 17.</p>
40.00	<p>Set temp. \pm sec. cor.</p>
79.82	<p>Intersect N. and S. line, 17 lks. N. of the cor. of secs. 8, 9, 16, and 17.</p> <p>Thence I run</p>

Subdivision of T.17 S., R.20 E., Continued.

chains	N.89° 43'W., on a true line bet. secs. 8 and 17. Over mountainous land; through dense undergrowth; descend.
8.15	Creek, 2 lks. wide, 4 ins. deep, in canon, 100 ft. below sec. cor., course N.20° E.; ascend .
39.91	Set a limestone, 16x10x6 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. high, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
42.00	Top of ridge, 250 ft. above canon, bears N.15° E. and S.15° W.; descend .
66.00	Bottom of canon, 300 ft. below ridge, course N.30° E.; main trail to Thompsons in bottom . Ascend .
79.82	The cor. of secs. 7, 8, 17, and 18. Land, mountainous. Soil, sandy and gravelly loam and rocky; 2nd and 4th rate. No timber. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.82 chs.

September 7, 1901.

September 9, 1901: At 7 h 30 m a.m., l.m.t., I set off 39° 21'N.; on the lat. arc; 5° 28'N., on the decl. arc; and determine a true meridian with the solar at the cor. of secs. 7, 8, 17, and 18.

Thence I run

N.89° 40'W., on a random line bet. secs. 7 and 18.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.70 Intersect w.bdy. of Tp., 24 lks. N. of the cor. of secs. 7, 12, 13, and 18, heretofore described.

Thence I run

S.89° 50'E., on a true line bet. secs. 7 and 18.

Subdivision of T.17 S., R.20 E.-Continued.

Chains	Over mountainous land; through dense undergrowth; descend .
.75	Greek, 2 lks. wide, 3 ins. deep, in bottom of hollow, 10 ft. below sec.cor., course N.30°E.; ascend .
28.00	Top of ridge, 200 ft. above hollow, bears N. and S.; descend .
39.70	Set a sandstone, 15x10x5 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor.Pits impracticable .
48.00	Bottom of hollow, 100 ft. below ridge , course N.; ascend .
74.00	Top of ridge, 100 ft. above hollow, bears N.30°E. and S.30°W.;descend .
79.70	The cor.of secs.7,8,17, and 18. Land, mountainous. Soil, sandy and gravelly loam; 2nd rate. No timber. Undergrowth,oak and sage brush. Good grass for grazing. Mountainous land,or land covered with dense undergrowth,79.70 chs.

N.0°03'W.,betsecs.7 and 8.

Over mountainous land; through dense undergrowth;ascend .

7.00	Top of ridge,150 ft.above sec.cor.,bears N.30°E. and S.30°W.;descend .
40.00	Set a limestone,18x10x5 ins.,12 ins.in the ground, for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on W.face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable .
80.00	set a limestone,24x18x5 ins.,18 ins.in the ground, for cor.of secs.5,6,7, and 8,marked with 5 notches on S.and 5 notches on E.edges;and raise a mound of

Subdivision of T.17 S., R.20 E.-Continued.

Chains	<p>stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p> <p>Land, mountainous.</p> <p>Soil, sandy and gravelly loam; 2nd rate.</p> <p>No timber.</p> <p>Undergrowth, oak and sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.00 chs.</p>
	<p>S. $89^{\circ} 43' E.$, on a random line bet. secs. 5 and 8.</p>
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.10	Intersect N. and S. line, 23 lks. S. of the cor. of secs. 4, 5, 8, and 9.
	Thence I run
	N. $89^{\circ} 52' W.$, on a true line bet. secs. 5 and 8.
	Over mountainous land; through dense undergrowth and scattering timber; descend.
6.00	Creek, 3 lks. wide, 3 ins. deep, in canon, 100 ft. below sec. cor., course N.; ascend.
22.00	Top of ridge, 150 ft. above canon, bears N. and S.; descend.
39.90	Bottom of canon, 300 ft. below ridge, course N. $15^{\circ} E.$; main trail to Thompsons in bottom. Ascend.
40.05	Set a sandstone, 16x10x6 ins., 11 ins. i[n the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which
	an aspen, 8 ins. diam., bears N. $10^{\circ} W.$, 70 lks. dist., marked $\frac{1}{4}$ S. 5, B.T.
	an aspen, 5 ins. diam., bears S. $30^{\circ} E.$, 52 lks. dist., marked $\frac{1}{4}$ S. 8, B.T.
63.00	Top of ridge, 200 ft. above canon, bears N. $30^{\circ} E.$ and S. $30^{\circ} W.$; descend.
80.10	The cor. of secs. 5, 6, 7, and 8.
	Land, mountainous.

Subdivision of T.17 S., R.20 E.-Continued.

Chains	<p>Soil, sandy and gravelly; 2nd and 3rd rate.</p> <p>Timber, scattering pine and aspen.</p> <p>Undergrowth, oak and sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.10 chs.</p> <p>September 9, 1901: At the noon hour the sky is overcast and solar observations are impossible.</p>
	<p>N.89° 50' W., on a random line bet. secs. 6 and 7.</p>
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.54	<p>Intersect w.bdy. of Tp., 15 lks. N. of the cor. of secs. 1, 6, 7, and 12, heretofore described.</p> <p>Thence I run</p> <p>S.89° 56' E., on a true line bet. secs. 6 and 7.</p> <p>Over mountainous land; through dense undergrowth; ascend.</p>
10.00	Top of ridge, 150 ft. above sec. cor., bears N.20° E. and S.20° W.; descend.
30.00	Bottom of hollow, 150 ft. below ridge, course N.40° E.; ascend.
39.54	<p>Set sandstone, 18x5x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor., its impracticable.</p>
51.75	Top of ridge, 200 ft. above hollow, bears N.20° E. and S.20° W.; descend.
70.00	Creek, 6 lks. wide, 3 ins. deep, in bottom of canon, 250 ft. below ridge, course N.10° E.; ascend.
79.54	<p>The cor. of secs. 5, 6, 7, and 8.</p> <p>Land, mountainous.</p> <p>Soil, sandy and gravelly loam; 2nd rate.</p> <p>No timber.</p> <p>Undergrowth, oak and sage brush.</p> <p>Good grass for grazing.</p>

Subdivision of T.17 S.. R.20 E.-Continued.

Chains	Mountainous land, or land covered with dense undergrowth, 79.54 chs.
	N.0°03'W., on a random line bet. secs. 5 and 6.
40.00	set temp. $\frac{1}{2}$ sec.cor.
80.04	Intersect N.bdy.of Tr., 2 lks.E.of the cor.of secs. 5, 6, 31, and 32, heretofore described.
	Thence I run
	S.0°04'E., on a true line bet. secs. 5 and 6.
	Over mountainous land; through dense undergrowth ;descend .
30.00	Creek, 8 lks.wide, 2 ins.deep, in bottom of canon, 200 ft.below sec.cor., course N.W.; ascend gentle slope along west side of canon.
40.04	set a sandstone, 14x12x4 ins., 9 ins.in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 rt.base, $1\frac{1}{2}$ rt.high, W.of cor.Pits impracticable.
40.50	Top of spur, 50 ft.above canon, bears E.and W; descend .
48.00	Bottom of same canon, creek, 8 lks.wide, 2 ins.deep, in bottom, 25 ft.below spur, course N.20°E.; ascend .
80.04	The cor.of secs. 5, 6, 7, and 8.
	Land, mountainous .
	Soil, sandy and gravelly loam and rocky; 2nd and 4th rate.
	No timber.
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.04.chs.

September 9, 1901.

Subdivision of T.17 S., R.20 E.-Concluded.

GENERAL DESCRIPTION.

The township is all mountainous and the soil ranges from sandy loam to rocky ground. The soil of the canon bottoms and on the ridges where the timber is heavy or undergrowth dense, is generally sandy or gravelly loam; 2nd rate. The soil is rocky along the side hills of Willow Creek canon, 4th rate.

Pinion pine, red pine, white pine, cedar, and aspen timber are found in the southern and eastern parts of the township.

There is no mineral in the township.

The township is well watered by Willow Creek and Pioche creek and numerous springs.

The entire township is covered with an abundant growth of rich and nutritious grasses, and is very well adapted for grazing purposes.

Albert Simons claims the ground along creek in Sec. 15. He lives on it in a tent during the summer months.

There are no other settlers in the township.

Andrew Stewart Jr.
U.S. Deputy Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of _____ showing the respective capacities in which they acted:

_____, Chairman.

_____, Chairman.

_____, Moundman.

_____, Moundman.

_____, Axman.

_____, Axman.

_____, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____, United States Deputy Surveyor, in surveying all those parts or portions of the _____

of the _____

meridian, _____ of _____, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for _____

_____, Chairman.

_____, Chairman.

_____, Moundman.

_____, Moundman.

_____, Axman.

_____, Axman.

_____, Flagman.

Subscribed and sworn to before me this _____
day of _____, 180_____ }



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____, bearing date of the _____ day of _____, 189_____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____ of the _____

meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189 }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah March 19 1903, 189

The foregoing field notes of the survey of _____
*Township 17 North Range 20 East of the Salt Lake
Base & Meridian, Utah*

executed by *Andrew J. Stewart Jr.*
under his contract No. *113*, dated *April 12, 1901*, 189_____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward H. Rudderam
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General

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BOOK A-29I

FIELD NOTES

A.T.B.

OF THE SURVEY OF THE

WEST AND NORTH BOUNDARIES

of

Township No. 17 South, Range No. 19 East,

Of the SALT LAKE BASE AND Meridian,

in the STATE OF UTAH

AS SURVEYED BY

Andrew J. Stewart Jr., United States Deputy Surveyor,

Under his Contract No. 243, dated April 12, 1901, 484

Survey commenced September 10, 1901, 488

Survey completed September 13, 1901, 489

6-151

Over Backings 6-1-55^v
Total 6-1 5.79 65^v
11 79-65^v

NAMES AND DUTIES OF ASSISTANTS.

.....William Matson	Chainman
.....Harvey M. Cluff	Chainman
.....William Andrews	Moundman
.....Arthur Wilde	Moundman
.....Omero Marriotti	Axman
.....Victor D. Cram	Flagman

Safarelli's may official to look C. J. 195 Rec E

INDEX DIAGRAM.

Township _____, *Range* _____

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30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

WE, and
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., Chainman.

....., Chainman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., Moundman.

....., Moundman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., Axman.

....., Axman.

Subscribed and sworn to before me this }
day of , 189 }



I, , do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., Flagman.

Subscribed and sworn to before me this }
day of , 189 }



West boundary of T.17 S., R.19 E.-

Survey commenced September 10, 1901, and executed with a W. and L.E. Gurley light mountain transit, No. 1, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs; The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, on May 29, 1901.

I examine the adjustments of the instrument, and correct the level and collimation errors, then, to test the solar apparatus by comparing its indications resulting from solar observations made during p.m. and a.m. hours with a true meridian, established by observation on Polaris, I proceed as follows:

At the cor. of Tps. 17 and 18 S., Rs. 18 and 19 E., heretofore described, latitude $39^{\circ}17'N.$, longitude $109^{\circ}55'W.$, I set off $39^{\circ}17'N.$, on the lat. arc; $4^{\circ}58'N.$, on the decl. arc; and at 3 h 2 m p.m., l.m.t., determine a true meridian with the solar, and mark a point thereof on a stone, set firmly in the ground, 5.00 chs. N. of the cor.

September 10, 1901.

September 11, 1901: At 2 h ~~08~~ m a.m., l.m.t., I observe Polaris at upper culmination, in accordance with the Manual and mark a point in the true meridian, thus determined, by cutting a small groove in the stone, already set 5.00 chs. N. of the cor.; this mark falls 0.32 ins. east of the mark determined with the solar. At 7 h 30 m a.m., l.m.t., I set off $39^{\circ}17'N.$, on the lat. arc; $4^{\circ}43'N.$, on the decl. arc; and mark a point in the true meridian, determined with the solar, by a cross on the stone, already set 5.00 chs. N. of the cor.; this mark falls 0.28 ins. east of the true meridian estab-

West boundary of T.17. S., R.19 E. - Continued.

Chains lished by Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for true meridian, respectively about 0'17" west and 0'15" east of the true meridian, established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 7 h 30 m a.m., l.m.t., is 15° 51.7' W., the angle thus determined reduced by the table page 100 of the Manual, gives the mean mag.decl. 15° 48' E.

From the above described cor

I run

North, bet. secs. 31 and 36.

Over mountainous land; through dense undergrowth; ascend

10.00 Enter scattering timber, bears E. and W.

40.00 Set a sandstone, 22x12x5 ins., 16 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W. face; from which

A pine, 20 ins. diam., bears S. 80° E., 30 lks.

dist., marked $\frac{1}{4}$ S. 31, B.T.

A mahogany 6, ins. diam., bears N. 50° W., 60 lks. dist., marked $\frac{1}{4}$ S. 36, B.T.

45.00 Top of ascent, 400 ft. above Tp.cor., bears E. and W.; thence over rolling mesa.

74.00 Leave mesa, bears E. and W.; descend.

80.00 Set a sandstone, 20x10x6 ins., 15 ins. in the ground, for cor. of secs. 25, 30, 31, and 36, marked with 5 notches on N. and 1 notch on S. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous and rolling mesa.

Soil, sandy and gravelly loam and rocky; 2nd and 4th rate.

Timber, pine and aspen.

Undergrowth, oak and sage brush and mahogany.

East boundary of T. 17 S., R. 19 E.-Continued.

Chains	Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	North, bet. secs. 25. and 30. Over mountainous land; through dense undergrowth and scattering timber; descend .
33.60	Bottom of hollow, 300 ft. below sec.cor., course N. 60° W. Ascend .
40.00	Set a sandstone, 18x5x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
54.25	Top of ridge, 200 ft. above hollow, bears N. 60° W. and S. 60° E.; descend .
70.00	Bottom of hollow, 150 ft. below ridge , course S. 85 ° E. Ascend .
80.00	Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for cor.of secs. 19, 24, 25, and 30, marked with 4 notches on N. and 2 notches on S.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy and gravelly; 3rd rate. Timber, scattering pine and cedar. Undergrowth; oak , sage and deer brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs. September 11, 1901:At the noon hour the sky is overcast and solar observations are impossible.
	North, bet. secs. 19 and 24. Over mountainous land; through dense undergrowth and scattering timber; ascend .

West boundary of T. 17 S., R. 19 E.-Continued.

Chains	
23.00	Top of ridge, 200 ft. above sec.cor., bears N.35° E. and S.35° W.; descend .
40.00	Set a sandstone, 16x8x7 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable .
65.00	Bottom of hollow, 250 ft. below ridge, course N.E.; ascend .
80.00	Set a sandstone, 16x9x5 ins., 11 ins. in the ground, for cor.of secs., 13,18,19, and 24, marked with 3 notches on N. and 3 notches on S.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable.
	Land, mountainous.
	Soil, sandy and gravelly loam and rocky; 2nd and 4th rate.
	Timber, scattering pine and cedar.
	Undergrowth, oak, sage and deer brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
<hr/>	
	North, betsecs. 13 and 18.
	Over mountainous land; through dense undergrowth and scattering timber; ascend .
18.00	Top of ridge, 175 ft. above sec.cor., bears N.60° E. and S.60° W.; descend .
40.00	Set a sandstone, 18x12x7 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable .
45.00	Bottom of hollow, 300 ft. below ridge, course N.55° E.; ascend .
80.00	Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for

West boundary of T. 17 S., R. 19 E.-Continued.

Chains	cor. of secs. 7, 12, 13, and 18, marked with 2 notches on N. and 4 notches on S. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy and gravelly; 2nd rate. Timber, pine and cedar. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
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September 11, 1901.

September 12, 1901: At 7 h 58 m a.m., l.m.t., I set off $39^{\circ} 21' N.$, on the lat. arc; $4^{\circ} 19' N.$ on the decl. arc; and determine a true meridian with the solar at the cor. of secs. 7, 12, 13 and 18.

Thence I run

North, bet. secs. 7 and 12.

Over mountainous land through dense undergrowth and scattering timber; ascend.

- | | |
|-------|---|
| 7.00 | Top of ridge, 200 ft. above sec. cor. bears N. $50^{\circ} E.$ and S. $50^{\circ} W.$; descend abruptly. |
| 40.00 | Set a sandstone $18 \times 10 \times 6$ ins., 12 ins. in the ground for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. |
| 50.00 | Creek 8 lks. wide 3 ins. deep, rapid current in bottom of Rattlesnake Canon, 500 ft. below ridge, course N. $25^{\circ} W.$; ascend abruptly. |
| 80.00 | Set a limestone $20 \times 10 \times 9$ ins., 15 ins. in the ground for corner of secs. 1, 6, 7, and 12, marked with 5 notches on S. and 1 notch on N. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, mountainous. |

West boundary of T.17 S., R. 19 E.- Continued.

Chains Soil, sandy and gravelly loam and rocky, 2nd and 4th, rate.

Timber, scattering pine and cedar.

Undergrowth, oak, mahogany and deer brush.

Good grass for grazing.

Mountainous land or land covered with dense undergrowth, 80.00 chs.

North, bet. secs. 1 and 6.

Over mountainous land through dense undergrowth and scattering timber; ascend.

26.00 Top of ridge, 500 ft. above sec. cor. and 1000 ft. above Rattlesnake Canon, bears N.40°W. and S.80°E.; descend abruptly.

40.00 Set a limestone 20x9x8 ins., 15 ins. in the ground for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

50.00 Creek 4 lks. wide, 3 ins. deep, in bottom of Florence Canon 800 ft. below ridge, course N.80°W.; ascend abruptly.

80.00 Set a sandstone 26x10x10 ins., 18 ins. in the ground, for cor. of Tps. 16 and 17 S., Rs. 18 and 19 E., marked 16 S. on N.E., 19 E. on S.E., 17 S. on S.W., and 18 E. on N.W. faces; with 6 notches on each edge; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor. Pits impracticable.

Land, mountainous.

Soil, sandy and gravelly loam and rocky, 2nd. and 4th, rate.

Timber, pinion pine and cedar.

Undergrowth, oak, deer brush and mahogany.

Good grass for grazing.

Mountainous land or land covered with dense undergrowth 80.00 chs.

7

West boundary of T. 17 S., R. 19 E. - Concluded.

Chains September 12, 1901: At the noon hour the sky is overcast and solar observations are impossible.

East on a random line along north boundary of T. 17 S. R. 19 E., setting temp. $\frac{1}{4}$ sec. and sec. cors. at intervals of 40 chs., and at 479.60 chs. intersect E. bdy. of Tp. 42 lks. south of the cor. of Tps. 16 and 17 S. Rs. 19 and 20 E. heretofore described.

The falling answers to a correction of 42 lks. or 7 lks. south per mile counting from the cor. of Tps. 16 and 17 S. Rs. 19 and 20 E.

September 12, 1901.

September 13, 1901; At 8 h 2 m a.m., l.m.t., I set off $39^{\circ} 23' N.$, on the lat. arc; $3^{\circ} 57' N.$ on the decl. arc; and determine a true meridian with the solar, at the cor. of Tps. 16 and 17 S., Rs. 19 and 20 E. heretofore described.

Thence I run

S. $89^{\circ} 57' W.$, on a true line along north boundary of Tp. 17 S. R. 19 E., bot. secs. 1 and 36.

Over nearly level mesa through dense undergrowth and scattering timber.

3.00 Edge of mesa, bears N. $20^{\circ} E.$ and S. $20^{\circ} W.$; descend abruptly.

36.00 Foot of descent, enter bottom of Hill Creek Canon 700 ft. below mesa, bears N. $20^{\circ} E.$ and S. $20^{\circ} W.$.

39.10 Hill Creek 16 lks. wide, 5 ins. deep, rapid current, rocky bottom, course N. $20^{\circ} E.$.

40.00 Set a sandstone, 18x10x5 ins., 12 ins. in the ground for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

43.00 Trail bears with canon.
44.00 Leave canon bottom, bears N. $20^{\circ} E.$ and S. $20^{\circ} W.$; ascend abruptly.

70.00 Top of ascent, edge of mesa, bears N.E. and S.W.

8

North boundary of T. 17 S., R. 19 E. -Continued.

Chains	thence over rolling mesa.
80.00	Set a sandstone, 18x12x8 ins., 12 ins. in the ground for cor. of secs. 1,2,35 and 36, marked with 1 notch on E. and 5 notches on W.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
	Land, mountainous and nearly level.
	Soil, sandy and rocky, 2nd and 4th rate.
	Timber, scattering pinion pine and cedar.
	Undergrowth, oak, service berry and deer brush.
	Good grass for grazing.
	Mountainous land or land covered with dense undergrowth, 80.00 chs.
<hr/>	
	S. 89° 57' W., on a true line bet. secs. 2 and 35.
	Over rolling mesa, through dense undergrowth.
40.00	Set a sandstone, 18x6x6 ins., 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
80.00	Set a sandstone, 18x10x4 ins., 12 ins. in the ground for cor. of secs. 2,3,34 and 35, marked with 2 notches on E. and 4 notches on W.edges and raise a mound of stone, 3 ft. base, 2 ft. high, W.of cor. Pits impracticable.
	Land, nearly level mesa.
	Soil, sandy and gravelly loam, 2nd rate.
	No timber.
	Undergrowth, oak and sage.
	Good grass for grazing.
	Land covered with dense undergrowth, 80.00 chs.

North boundary of T. 17 S., R. 19 E. - Continued.

Chains S $89^{\circ} 57' W.$, on a true line bet. secs. 3 and 34.
Over rolling mesa through dense undergrowth.
8.00 Edge of mesa, bears N. $20^{\circ} E.$ and S. $20^{\circ} W.$; descend.
40.00 Set a sandstone, 19x12x8 ins., 12 ins. in the ground,
for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; and raise a mound
of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits
impracticable.
58.00 Creek, 2 lks. wide, 2 ins. deep in bottom of canon,
250 ft. below mesa, course N. $20^{\circ} E.$; ascend.
70.00 Top of ascent, edge of mesa, 200 ft. above canon, bears
N. $20^{\circ} E.$ and S. $20^{\circ} W.$
80.00 Set a sandstone, 18x12x7 ins., 12 ins. in the ground
for cor. of secs. 3, 4, 33 and 34, marked with 3 notches
on E. and 3 notches on W. edges, and raise a mound of
stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits imprac-
ticable.
Land, mountainous and nearly level.
Soil, sandy and gravelly loam, 2nd rate.
No timber.
Undergrowth, oak and sage brush.
Good grass for grazing.
Mountainous land or land covered with dense under-
growth, 80.00 chs.

S. $89^{\circ} 57' W.$, on a true line bet. secs. 4 and 33.

Over rolling mesa through dense undergrowth; ascend
gently.

40.00 Set a limestone 18x14x4 ins., 12 ins. in the ground
for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a
mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
Pits impracticable.
60.50 Edge of mesa, bears N.W. and S. Leave mesa; descend.
71.00 Dilapidated pole fence bears N. and S.
80.00 Set a limestone, 17x10x4 ins., 11 ins. in the ground
for cor. of secs. 4, 5, 32 and 33, marked with 4 notch-
es on E. and 2 notches on W. edges; and raise a mound
of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

North boundary of T. 17 S., R. 19 E. - Continued.

Chains	Pits impracticable. Land, nearly level and mountainous. Soil, sandy and clay loam, 2nd rate. No timber. Undergrowth, sage brush. Good grass for grazing. Mountainous land or land covered with dense undergrowth, 80.00 chs. <u>September 13, 1901; At the noon hour the sky is overcast and solar observations are impossible.</u>
	S89° 57' W., on a true line bet. secs. 5 and 32. Over mountainous land through dense undergrowth and scattering timber; descend abruptly.
32.00	Bottom of hollow, 400 ft. below sec. cor. course S. 20° W.; ascend.
40.00	Set a limestone, 20x12x4 ins., 15 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; from which A mahogany, 8 ins. diam., bears N. 25° E., 50 lks. dist., marked $\frac{1}{4}$ S. 32 B.T. A red cedar, 6 ins. diam., bears S. 85° E. 20 lks. dist., marked $\frac{1}{4}$ S. 5 B.T.
69.50	Top of ridge, 500 ft. above hollow bears N. 10° E. and S. 10° W.; descend abruptly.
80.00	Set a sandstone, 20x10x9 ins., 15 ins. in the ground for cor. secs. 5, 6, 31 and 32, marked with 5 notches on E. and 1 notch on W. edges; and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, gravelly and rocky, 3rd and 4th rate. Timber, scattering cedar and pinion pine. Undergrowth, mahogany, oak and deer brush. Good grass for grazing. Mountainous land or land covered with dense undergrowth, 80.00 chs.

/ /

North boundary of T. 17 S. R. 19 E. - Continued.

Chains	S. $89^{\circ}57'W.$, on a true line bet. secs. 6 and 31.
	Over mountainous land through dense undergrowth and scattering timber; descend abruptly.
15.00	Bottom of hollow 400 ft. below sec. cor. course S. $20^{\circ}W.$; ascend.
40.00	Set a limestone, 22x8x6 ins., 16 ins. in the ground for $\frac{1}{4}$ sec. cor.; marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
55.00	Top of ridge 800 ft. above hollow, bears N. $10^{\circ}E.$ and S. $10^{\circ}W.$; descend.
79.60	The corner of Tps. 16 and 17 S. Rs. 18 and 19 E. Land, mountainous. Soil, gravelly and rocky, 3rd and 4th rate. Timber, pinion pine and cedar. Undergrowth, mahogany, oak and deer brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.60 chs.

September 13, 1901.

Boundaries of T. 17 S., R. 19 E.

Latitudes, departures and closing errors.

Line designated	True bearing	Distance	Latitudes		Departures	
			N. chs.	S. chs.	E. chs.	W. chs.
E. bdy. T. 17 S. R. 19 E.	South	480.00		480.00		
S. bdy. T. 17 S. R. 19 E.	West	479.60				479.60
W. bdy. T. 17 S. R. 19 E.	North	480.00	480.00			
N. bdy. T. 17 S. R. 19 E.	N. $89^{\circ}57'E.$	479.60	.42		479.60	
Convergency					.50	
Error in lat.			480.42	480.00	480.10	479.60
Error in dep.			480.00		479.60	
			.42			.50

This township is all mountainous except in the northern part there are two rolling mesas.

The township is covered with a dense growth of undergrowth and with nutritious grasses, and there is

Boundaries of T. 17 S., R. 19 E. - Concluded.

sufficient water to make it valuable for grazing purposes. There is considerable timber in the south and west part of the township. It should be subdivided.

Andrew J. Stewart Jr.
U.S. Deputy Surveyor.

September 13, 1901.

Volume

#

R0291

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____

_____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes on the survey of _____

showing the respective capacities in which they acted:

_____, Chainman.

_____, Chainman.

_____, Moundman.

_____, Moundman.

_____, Axman.

_____, Axman.

_____, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____

_____, United States Deputy Surveyor, in surveying all those parts or portions of the _____

of the _____

meridian, _____ of _____, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for _____

_____, Chainman.

_____, Chainman.

_____, Moundman.

_____, Moundman.

_____, Axman.

_____, Axman.

_____, Flagman.

Subscribed and sworn to before me this _____

day of _____, 189_____



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____, United States Surveyor General for _____, bearing date of the day of _____, 189_____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____,

of the _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

JM
United States Deputy Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189 }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Salt Lake, March 19, 1901, 189

The foregoing field notes of the survey of *The West & North Boundaries of Township 17 South Range 19 East of the 1st Meridian, Salt Lake City, Utah*

executed by *Andrew J. Stewart Jr.* under his contract No. *243*, dated *April 19, 1901*, 189, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward M. Anderson
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General.

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June 30, 1907. E.S.B.

4-679.

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BOOK A-291

FIELD NOTES

X. S. S.

OF THE SURVEY OF THE

SUBDIVISION

of

Township No. 17 South, Range No. 19 East,

of the SALT LAKE BASE AND Meridian,

in the STATE OF UTAH

AS SURVEYED BY

Andrew J. Stewart Jr., United States Deputy Surveyor

Under his Contract No. 243, dated April 12, 1901. ~~xx~~

Survey commenced September 14, 1901. ~~x186~~

Survey completed September 27, 1901. ~~x187~~

6-161

High 59.75.64'

NAMES AND DUTIES OF ASSISTANTS.

William Matson

Chainman

Harvey M. Cluff

Chainman

William E Andrews

Moundman

Arthur Wilde

Moundman

Omero Marriotti

Axman

Victor D. Cram

Flagman

To preliminary affidavits Feb 20 D. F. 1951 P. C. P.

BOOK A-291

INDEX DIAGRAM.

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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, and

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., *Chainman.*

....., *Chainman.*

Subscribed and sworn to before me this

day of, 189 }



WE, and

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., *Moundman.*

....., *Moundman.*

Subscribed and sworn to before me this

day of, 189 }



WE, and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., *Axman.*

....., *Axman.*

Subscribed and sworn to before me this

day of, 189 }



I, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., *Flagman.*

Subscribed and sworn to before me this

day of, 189 }



Subdivision of T. 17 S., R. 19 E.

Survey commenced September 14, 1901, and executed with a W. and L.E. Gurley light mountain transit, No. 1, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah on May 29, 1901.

I examine the adjustments of the instrument, and correct the level and collimation errors, then, to test the solar apparatus by comparing its indications resulting from solar observations made during p.m. and a.m. hours, with a true meridian, established by observation on Polaris, I proceed as follows:

At the cor. of secs. 1, 2, 35 and 36, on S.bdy.of Tp., heretofore described, latitude $39^{\circ}17'N.$, longitude $109^{\circ}49'W.$, I set off $39^{\circ}17'N.$, on the lat.arc; $3^{\circ}26'N.$ on the decl. arc; and at 3 h 5 m p.m.l.m.t., determine a true meridian, with the solar, and mark a point thereof on a stone, firmly set in the ground, 5.00 chs. N. of the cor.

At 7 h 55 m p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark a point in the line thus determined, by a tack driven in a wooden plug set in the ground, east of the stone already set in the ground, 5.00 chs.N.of the cor.

September 14, 1901.

September 16, 1901: At 6 h 50 m a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ}34:5'$ to the west, and mark a point in the true meridian, thus determined, by cutting a small groove in the stone, already set 5.00 chs.N.of the cor. on which the true meridian falls

Subdivision of T. 17 S., R. 19 E. Continued

Chains 0.23 ins. east of the true meridian determined with the solar.

At 7 h 58 m a.m. l.m.t., I set off $39^{\circ}17'N.$ on the lat. arc; $2^{\circ}47'N.$ on the decl. arc; and mark a point in the true meridian, determined with the solar, by a cross on the stone, already set 5.00 chs N. of the cor.; this mark falls 0.34 ins. east of the true meridian, established by Polaris observation.

The solar apparatus by p.m. and a.m. observations, defines positions for true meridians, respectively about $0^{\circ}12'$ west and $0^{\circ}18'$ east of the true meridian established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory. The magnetic bearing of the true meridian, at 7 h 30 m a.m., l.m.t., is $15^{\circ}51.7'W.$, the angle thus determined reduced by the table page 100 of the Manual gives the mean mag. decl. $15^{\circ}48'E.$

From the above described cor.

I run:

$N.0^{\circ}01'W.$, bet. secos. 35 and 36.

Over mountainous land; through scattering timber and dense undergrowth; descend.

- 32.00 Foot of descent; enter bottom of Hill Creek Canon, bears $N.30^{\circ}W.$ and $S.30^{\circ}E.$.
- 38.25 Hill Creek 6 lks. wide, 4 ins. deep, rapid current, course $N.30^{\circ}W.$.
- 40.00 Set a limestone, $20 \times 10 \times 8$ ins., 15 ins. in the ground, for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on W. face and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 41.00 Trail bears $N.30^{\circ}W.$ and $S.30^{\circ}E.$.
- 44.00 Leave canon bottom, bears $N.30^{\circ}W.$ and $S.30^{\circ}E.$; ascend abruptly.
- 50.00 Top of ridge 500 ft. above canon, bears $N.80^{\circ}E.$ and $S.80^{\circ}W.$; descend.

5

Subdivision of T. 17 S. R. 19 E. -Continued.

Chains	
80.00	<p>Set a sandstone, 18x10x6 ins., 12 ins. in the ground for cor. of secs. 25, 26, 35 and 36, marked with 1 notch S. and 1 notch on E. edges; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p> <p>Land, mountainous.</p> <p>Soil, clay and gravelly loam, 2nd and 3rd rate.</p> <p>Timber, scattering cedar and pinion pine.</p> <p>Undergrowth, oak, service berry and deer brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.00 chs.</p>
40.00	<p>East, on a random line bet. secs. 25 and 36.</p> <p>Set temp. $\frac{1}{4}$ sec. cor.</p>
79.90	<p>Intersect E. bdy. of Tp. 10 lks. S. of cor. of secs. 25, 30, 31 and 36, heretofore described.</p> <p>Thence I run</p> <p>S. $89^{\circ} 56' W.$, on a true line bet. secs. 25 and 36.</p> <p>Over mountainous land; through dense undergrowth; descend.</p>
39.00	<p>Enter aspen grove bears N. and S.</p>
39.05	<p>Set a sandstone, 18x6x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which</p> <p>An aspen, 6 ins. diam. bears N. 2 lks. dist., marked $\frac{1}{4}$ S. 25 B.T.</p> <p>An aspen, 6 ins. diam. bears S. 30° E. 25 lks. dist., marked $\frac{1}{4}$ S. 36 B.T.</p>
42.00	<p>Bottom of hollow, 150 ft. below sec. cor. course S. 30° W.; ascend.</p>
54.50	<p>Top of ridge 150 ft. above hollow, bears N.E. and S.W.; descend.</p>
79.90	<p>The cor. of secs. 25, 26, 35 and 36.</p> <p>Land, mountainous.</p> <p>Soil, sandy and gravelly loam, 2nd and 3rd rate.</p>

Scattered timber, aspen.

Undergrowth, oak, sage and deer brush.

Good grass for grazing.

Mountainous land or land covered with dense undergrowth, 75.00 chs.

X.0°01'W. bet. secs. 25 and 26.

Over mountainous land, through dense undergrowth and scattering timber; descend.

20.00 Bottom of hollow, 250 ft. below sec. cor., course W.; ascend.

40.00 Set a sandstone, 20x9x6 ins., 15 ins. in the ground, for 1 sec. cor., marked with $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, E. of cor. Pits impracticable.

60.00 Set a limestone, 15x12x4 ins., 10 ins. in the ground for cor. of secs. 23, 24, 25 and 26, marked with 2 notches on S. and 1 notch on E. edges; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, E. of cor. Pits impracticable.

Land, mountainous.

Soil, clay loam and gravelly, 2nd and 3rd rate.

Timber, scattering aspen.

Undergrowth, oak, sage and deer brush.

Good grass for grazing.

Mountainous land or land covered with dense undergrowth, 60.00 chs.

September 18, 1901 AT THE noon hour the sky is overcast and solar observations are impossible.

X.0°34'W. on a random line bet. secs. 24 and 25.

40.00 Set comp. $\frac{1}{2}$ sec. cor.

75.00 Intersect E. bly. of 7 $\frac{1}{2}$ at the cor. of secs. 18, 24, 25 and 26, herefore described.

Thence 1 sec.

X.0°34'W. on a true line bet. secs. 24 and 25.

3-

S Subdivision of T. 17 S., R. 19 E. - Continued.

Chains	Over mountainous land, through aspen timber; ascend.
16.00	Top of ridge, 80 ft. above sec. cor. bears N. and S. descend.
25.25	Bottom of hollow 100 ft. below ridge, course N. 20° E. Leave aspen timber, enter dense undergrowth.
39.99	Set a limestone, 16x10x4 ins., 10 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
45.90	Top of ridge, 200 ft. above hollow bears N. 40° E. and S. 40° W.; descend.
50.44	Bottom of hollow, 40 ft. below ridge, course N.; ascend.
74.50	Top of ridge, 100 ft. above hollow bears N. 70° W. and S. 70° E.; descend.
79.98	The cor. of secs. 23, 24, 25 and 26. Land, mountainous. Soil, clay and gravelly loam, 2nd and 3rd rate. Timber, aspen. Undergrowth, sage brush. Good grass for grazing. Mountainous or heavily timbered land, or land covered with dense undergrowth, 79.98 chs.
	N. 0° 01' W. bet. secs. 23 and 24. Over mountainous land through dense undergrowth and scattering timber; ascend.
3.50	Top of ridge, 10 ft. above sec. cor. bears N. 70° W. and S. 70° E.
14.50	Bottom of hollow 50 ft. below ridge, course N. 70° E. ascend.
25.00	Top of ridge, 60 ft. above hollow, bears N.E. and S.W.
40.00	Set a sandstone, 18x12x5, ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; from which An aspen, 5 ins. diam., bears S. 80° E. 50 lks. dist., marked $\frac{1}{2}$ S. 24 B.T. An aspen, 8 ins. diam., bears N. 45° W. 46 lks. dist., marked $\frac{1}{2}$ S. 23 B.T.

Subdivision of T. 17 S., R. 19 E. - Continued.

Chains.	
50.00	Bottom of hollow, 50 ft. below ridge, course N. 30° E.; ascend.
74.00	Top of ridge 60 ft, above hollow, bears E. and W.; descend
80.00	Set a sand stone, 18x10x8 ins., 12 ins. in the ground, for cor. of secs: 13,14,23 and 24, marked with three notches on S. and 1 notch on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.
	Pits impracticable.
	Land, mountainous.
	Soil, clay and gravelly loam; 2nd rate.
	Timber, aspen.
	Undergrowth, sage and deer brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	N. 89° 56' E. on a random line bet. secs. 13 and 24.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.04	Fall 8 lks. N.of cor. of secs. 13,18,19 and 24 on E. bdy. of Tp. heretofore described.
	Thence I. run
	S. 89° 59' W.. on a true line bet. secs. 13 and 24.
	Over mountainous land, through dense undergrowth and scattering timber: descend.
14.50	Creek, 3 lks. wide, 1 inch deep, in bottom of hollow, 65. ft. below sec. cor.course N.;ascend.
34.50	Top of ridge, 250 ft. above hollow, bears N.10° E. and S.10° W.; descend.
40.02	Set a sandstone, 18x8x7 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor.
	Pits impracticable.
42.00	Enter aspen saplings bears N.and S.
51.00	Leave aspen saplings bears N.and S.
65.00	Bottom of hollow, 150 ft. below ridge, course N.15° E.

Subdivision of T. 17 S. R. 19 E. - Continued.

Chains	ascend.
80.04	<p>The cor. of secs. 13,14,23and 24.</p> <p>Land, mountainous.</p> <p>Soil, clay loam and gravelly, 2nd rate.</p> <p>Timber, aspen saplings.</p> <p>Undergrowth, sage, oak and deer brush.</p> <p>Good grass for grazing.</p> <p>Mountainous or heavily timbered land or land covered with dense undergrowth, 80.04 chs.</p>
20.00	<p>N.0°01'W., bet. secs. 13 and 14.</p> <p>Over monntainous land, through dense undergrowth; descend gradually.</p>
40.00	<p>Top of ridge, 30 ft. above sec.cor bears N.20°E. and S.20°W.; descend.</p>
80.00	<p>Set a sandstone, 20x14x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor.marked $\frac{1}{4}$ on W.face;and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft. high,W.of cor. Pits impracticable.</p> <p>Set a sandstone, 18x5x4 ins., 12 ins. in the ground, for cor.of secs.11,12,13 and 14 marked with 4 notches on S.and 1 notch on E.edges;and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable..</p> <p>Land, mountainous.</p> <p>Soil, clay and gravelly loam, 2nd rate.</p> <p>No timber.</p> <p>Undergrowth, sage and deer brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.00 chs.</p>

September 16, 1901,

September 17,1901: At 8:30 a.m., l.m.t., I set off $39^{\circ}21'N.$ on the lat.arc; $2^{\circ}24'N.$,on the decl.arc;and determine a true meridian with the solar at the cor. of secs. 11,12,13 and 14.

Subdivision of T. 17 S. R. 19 E. - Continued.

Chains.	Thence I run N. 89° 59' E. bet secs. 12 and 13.
40.00	Set. temp. $\frac{1}{4}$ sec. cor.
80.00	Intersect E. bdy of Tp. 2 lks. N. of the cor. of secs. 7, 12, 13 and 18, heretofore described. Thence I run West, on a true line bet. secs. 12 and 13. Over mountainous land, through dense undergrowth and scattering timber; descend.
1.50	Creek 2 lks. wide 2 ins. deep in bottom of hollow, 10 ft. below sec. cor. course N. 20° E.; ascend.
40.00	Set a limestone, 20x12x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
42.00	Top of ridge 400 ft. above sec. cor. bears N. 30° E. and S. 30° W.; descend.
50.00	Bottom of hollow 100 ft. below ridge course N. 15° E.; ascend.
62.00	Top of ridge 100 ft. above hollow, bears N. 30° E. and S. 30° W.; descend.
80.00	The cor. of secs. 11, 12, 13 and 14. Land, mountainous. Soil, clay loam and gravelly, 2nd. rate. Timber, scattering aspens. Undergrowth, sage, service berry and deer brush. Good grass for grazing. Mountainous land or land covered with dense under- growth, 80.00 chs.

N. 0° 01' W., bet. secs 11 and 12.

Over mountainous land through dense undergrowth; descend

40.00	Set a sandstone, 22x9x7 ins., 16 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
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Subdivision of T. 17 S. R. 19 E. -Continued.

Chains.	
55.00	Bottom of hollow, 300 ft. below sec.cor. course N.10° E.; ascend gently. Enter heavy timber, bears E. and W.
80.00	Set a sandstone, 18x10x6 ins 1½ ins. in the ground, for cor.of secs. 1,2,11 and 12, marked with 5 notches on S. and 1 notch on E.edges; from which A pinion pine, 14 ins.diam., bears N.51°E., 50 lks.dist.,marked T.17 S.R.19 E.S.1 B.T. A red pine, 18 ins.diam., bears S.53°E.75 lks. dist.,marked T.17 S.R.19 E.S.12 B.T. A red pine, 15 ins.diam., bears S.29°W., 75 lks.dist.marked T.17 S.R.19 E.,S.11 B.T. A red pine, 8 ins.diam., bears N.43°W.100 lks.dist.marked T.17 S.R.19 E.S.2 B.T. Land, mountainous. Soil, clay loam and gravelly, 2nd rate. Timber, pine and aspen. Undergrowth, sage brush. Good grass for grazing. Mountainous or heavily timbered land or land covered with dense undergrowth, 80.00 chs.
40.00	East, on a random line bet. secs. 1 and 12. Set temp. $\frac{1}{2}$ sec.cor.
79.90	Fall 5 lks. S.of cor. of secs. 1,6,7 and 12 on E.bdy. of Tp., heretofore described. Thence I run S.89°58'W.,on a true line bet. secs. 1 and 12. Over mountainous land, through dense undergrowth; ascend.
22.00	Top of ridge, bears N.20°E. and S.20°W.; descend.
39.95	Set a sandstone, 15x10x5 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, 1½ ft. high, N.of cor. Pits impracticable.
59.00	Bottom of hollow, 500 ft. below ridge, cours. 15° E.

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Subdivision of T. 17 S. R. 19 E.- Continued.

Chains ascend.

70.50 Top of ridge, 200 ft. above hollow, bears N. 20° E. and S. 20° W. descend.

76.00 Bottom of hollow 200 ft. below ridge, course N. 5° E.; ascend. Enter heavy timber bears N. and S.

79.90 The cor. of secs. 1, 2, 11 and 12.

Land, mountainous.

Soil, clay loam and gravelly, 2nd rate.

Timber, pine and aspen.

Undergrowth, sage and deer brush.

Good grass for grazing.

Mountainous or heavily timbered land, or land covered with dense undergrowth, 79.90 chs.

September 17, 1901,: At this cor. I set off 2° 19' N. on the decl. arc; and at 6 h 1 m, p.m.l.m.t., observe the sun on the meridian, the resulting lat. is 39° 22' N.

N. 0° 01' W., on a random line bet. secs 1 and 2.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.88 Intersect N. bdy. of Tp. at the cor. of secs. 1, 2, 35 and 36, heretofore described.

Thence I run

S. 0° 01' E., on a true line bet. secs. 1 and 2.

Over rolling mesa through dense undergrowth; descend gently. Also through scattering timber.

11.00 Edge of mesa, bears N.E. and S.W.; descend abruptly.

39.88 Set a sandstone, 18x8x7 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor; from which

A pinion pine, 11 ins. diam. bears S. 50° E. 70 lks. dist. marked $\frac{1}{2}$ S. 1 B.T.

A pinion pine, 12 ins. diam. bears N. 55° W. 20 lks. dist. marked $\frac{1}{2}$ S. 2 B.T.

40.50 Foot of descent 500 ft. below mesa. Enter bottom of Hill Creek Canon bears N.E. and S.W.

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Subdivision of T. 17 S. R. 19 E-Continued.

Chains	
42.00	Trail, bears N.E. and S.W.
46.00	Hill Creek 10 lks. wide, 6 ins. deep, moderate current. sandy bottom, course N.E.
51.00	Leave Canon bottom, bears N.E. and S.W.; ascend.
66.00	Enter ^{heavy} timber, bears E. and W.
78.88	The cor. of secs. 1, 2, 11 and 12. Land; mountainous and nearly level. Soil, clay loam and gravelly, 2nd and 3rd rate. Timber, pine and aspen. Undergrowth, sage, oak and service berry. Good grass for grazing. Mountainous or heavily timbered land or land covered with dense undergrowth, 78.88 chs.

September 17, 1901.

September 18, 1901: At 8 h 0 m a.m., l.m.t., I set off $39^{\circ}17'W$ on the lat. arc; $2^{\circ}01'N$. on the decl. arc; and determine a true meridian, with the solar at the cor. of secs. 2, 3, 34 and 35 on S.bdy. of Tp., heretofore described.

Thence I run

$N.0^{\circ}01'W.$, bet. secs. 34 and 35.

Over mountainous land, through dense undergrowth and scattering timber.

9.00	Top of ridge, 50 ft. above sec. cor. bears E. and W. descend.
12.65	Creek 2 lks. wide, 3 ins. deep, in bottom of hollow, 50 ft. below ridge, course W.; ascend.
40.00	Set a sandstone, $18 \times 10 \times 4$ ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. from which

An aspen, 3 ins. diam., bears S. $80^{\circ}E$. 35 lks. dist., marked $\frac{1}{2}$ S. 35 B.T.

An aspen, 5 ins. diam., bears N. $15^{\circ}W$. 35 lks. dist., marked $\frac{1}{2}$ S. 34 B.T.

Subdivision of T. 17 S. R. 19 E. - Continued.

Chains	
79.90	Top of ridge, 450 ft. above hollow, bears N.W. and S.E.; descend.
80.00	Set a sandstone, 18x10x5 ins., 12 ins. in the ground, for cor. of secs. 26, 27, 34 and 35, marked with 1 notch on S. and 2 notches on E. edges; from which An aspen, 10 ins. diam., bears N. 10° E. 45 lks, dist. marked T. 17 S. R. 19 E. S. 26 B.T. An aspen, 6 ins. diam., bears S. 41° E. 35 lks. dist., marked T. 17 S. R. 19 E. S. 35 B.T. An aspen, 6 ins. diam., bears S. 69° W. 120 lks. dist., marked T. 17 S. R. 19 E. S. 34 B.T. An aspen, 8 ins. diam., bears N. 70° W. 95 lks. dist., marked T. 17 S. R. 19 E. S. 27 B.T.
	Land, mountainous.
	Soil, clay loam and gravelly, 2nd rate.
	Timber, pine and aspen.
	Undergrowth, oak, sage and service berry.
	Good grass for grazing.
	Mountainous or heavily timbered land or land covered with dense undergrowth, 80.00 chs.
	East, on a random line bet. secs. 26 and 35.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
79.88	Intersect N. and S. line at the cor. of secs. 25, 26, 35 and 36.
	Thence I run
	West, on a true line bet. secs. 26 and 35.
	Over mountainous land, through dense undergrowth and scattering timber; descend.
23,50	Foot of descent. Enter bottom of Hill Creek Canon, 150 ft. below sec. cor. bears N. 30° W. and S. 30° E.
25.00	A large spring of good water bears N. about 150 lks. dist.
26.00	Trail, bears with canon.
26.50	Hill Creek 8 lks. wide, 6 ins. deep, moderate current

Subdivision of T. 17 S. R. 19 E. -Continued.

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|--------|--|
| Chains | course N. 30° W. |
| 30.00 | Leave canon bottom, bears N. 30° W. and S. 30° E.; ascend. |
| 39.94 | Set a sandstone, 22x14x5 ins., 16 ins. in the ground,
for $\frac{1}{2}$ sec. cor. marked $\frac{1}{4}$ on N. face; from which

A pine, 36 ins. diam., bears N. 3° E. 75 lks. dist
marked $\frac{1}{4}$ S. 26 B.T.

A sandstone boulder bears S. 40° W. 15 lks.
dist., marked x B.O. |
| 79.88 | The cor. of secs. 26, 27, 34 and 35.

Land, mountainous.

Soil, clay loam and rocky, 2nd and 3rd rate.

Timber, pine and aspen.

Undergrowth, oak, sage and service berry.

Good grass for grazing.

Mountainous land or land covered with dense undergrowth,
growth, 79.88 chs. |
| <hr/> | |
| | N. 0° 01' W., bet. secs. 26 and 27.

Over mountainous land through dense undergrowth and
scattering timber; descend. |
| 40.00 | Set a sandstone, 18x12x4 ins., 12 ins. in the ground,
for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which

A pine, 24 ins. diam. bears N. 17° E. 200 lks.
dist., marked $\frac{1}{4}$ S. 26, B:T.

There is no tree in sec. 27 within limits; and raise
a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
Pits impracticable. |
| 68.40 | Foot of descent. Enter bottom of Hill Creek Canon,
bears N. 20° W. and S. 20° E. |
| 68.95 | Hill Creek 8 lks. wide, 5 ins. deep, moderate current
Course N. 20° W. |
| 70.50 | Trail bears N.W. and S.E. |
| 80.00 | Set a sandstone, 20x12x6 ins., 15 ins. in the ground,
for cor. of secs. 22, 23, 26 and 27, marked with 2
notches on S. and 2 notches on E. edges; and raise a
mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
Pits impracticable.

Land, mountainous and nearly level. |

Subdivision of T. 17 S. R. 19 E.-Continued.

Chains	<p>Soil, clay loam and gravelly, 2nd rate.</p> <p>Timber, scattering pine and aspen.</p> <p>Undergrowth, oak, service berry, sage and willow.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense under-growth, 80.00 chs.</p>
	<p style="text-align: right;">September 18, 1901,:At the noon hour the sky is over-cast and solar observations are impossible.</p>
	<p>East, on a random line bet. secs. 23 and 26.</p>
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.96	Intersect N. and S. line at the cor. of secs, 23, 24, 25 and 26.
	Thence I run
	West, on a true line bet. secs. 23 and 26.
	Over mountainous land through dense undergrowth; descend gently.
31.50	Commence abrupt descent bears N. and S.
39.98	Set a sandstone, 22x12x6 ins., 16 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
41.00	Bottom of hollow 250 ft. below sec. cor. course S.W.; ascend.
58.25	Top of ridge, 100 ft. above hollow bears N.E. and S.W. descend.
79.50	Foot of descent. Enter bottom of Hill Creek Canon 500 ft. below ridge bears N. 20° W. and S. 20° E.
79.96	The cor. of secs. 22, 23, 26 and 27. Land, mountainous. Soil, clay loam gravelly and rocky, 2nd, 3rd and 4th. rate. No timber. Undergrowth, sage and service berry. Good grass for grazing.

Subdivision of T. 17 S. R. 19 E.-Continued.

Chains	Mountainous land, or land covered with dense undergrowth, 79.96 chs.
	N.0°01'W. bet. secs. 22 and 23.
	Over mountainous land, through dense undergrowth and scattering aspen saplings.
.80	Leave canon bottom, bears N.10°W. and S.10°E. Ascend gradually.
20.00	Commence steep ascent, bears E. and W.
33.00	Top of ridge, 500 ft. above sec. cor. bears N.60°E. and S.60°W.
40.00	Set a sandstone, 20x14x8 ins., 15 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
53.50	Bottom of canon, 100 ft. below ridge, course S.70°W. ascend.
65.00	Top of ridge, 200 ft. above hollow bears E. and W.
80.00	Set a sandstone, 20x12x8 ins., 14 ins. in the ground, for cor. of secs. 14, 15, 22 and 23, marked with 3 notches on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, clay loam and gravelly, 2nd and 3rd rate.
	Timber, aspen ^{&} saplings and cedar and pinion pine.
	Undergrowth, sage, oak and service berry.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
40.00	East, on a random line bet. secs. 14 and 23. Set temp. $\frac{1}{4}$ sec. cor.
80.00	Intersect N. and S. line 5 lks. S. of the cor. of secs. 13, 14, 23 and 24.
	Thence I run

Subdivision T. 17 S. R. 19 E. Continued.

Chains.

S. $89^{\circ} 58' W.$ on a true line bet. secs. 14 and 25.

Over mountainous land through dense undergrowth; ascend

5.00 Top of ridge, 20 ft. above sec. cor. bears N. $20^{\circ} E.$ and
S. $20^{\circ} W.$; descend.26.00 Bottom of hollow, 100 ft. below ridge course S. $35^{\circ} W.$;
ascend.40.00 Top of ridge 120 ft. above hollow bears N. $30^{\circ} E.$ and
S. $30^{\circ} W.$.Set a sandstone, 20x12x8 ins., 14 ins. in the ground,
for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; and raise a mound
of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits
impracticable.

Descend gradually.

71.00 Begin steep descent, bears N. $30^{\circ} E.$ and S. $30^{\circ} W.$.

80.00 The cor. of secs. 14, 15, 22 and 23.

Land, mountainous.

Soil, clay loam and gravelly, 2nd and 3rd. rate.

No timber.

Undergrowth, sage, oak and deer brush.

Good grass for grazing.

Mountainous land or land covered with dense under-
growth, 80.00 chs.

September 18, 1901.

September 19, 1901; At 8 h 3 m a.m., l.m.t., I set off
 $39^{\circ} 20' N.$ on the lat. arc; $1^{\circ} 38' N.$ on the decl. arc; and
determine a true meridian with the solar, at the cor.
of secs. 14, 15, 22 and 23.

Thence I run

N. $0^{\circ} 01' W.$, bet. secs. 14 and 15.

Over mountainous land through dense undergrowth; descend.

18.00 Bottom of hollow, 125 ft. below sec. cor. course N.
S. $80^{\circ} W.$.28.34 Top of ridge 150 ft. above hollow, bears N. $50^{\circ} W.$ and
S. $50^{\circ} E.$; descend.

40.00 Set a sandstone, 20x12x4 ins., 14 ins. in the ground,

Subdivision of T. 17 S. R. 19 E. Continued.

Chains	for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
46.00	Bottom of hollow, 250 ft. below ridge, course S. 80° W. Ascend.
78.80	Top of ridge 300 ft. above hollow, bears N.W. and S.E.; descend.
80.00	Set a sandstone, 24x14x4 ins., 18 ins. in the ground, for cor. of secs. 10, 11, 14 and 15, marked with 4 notches on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, clay loam and gravelly, 2nd and 3rd rate. No timber. Undergrowth, sage, oak and deer brush. Good grass for grazing. Mountainous land or land covered with dense undergrowth, 80.00 chs.

	N. $89^{\circ} 58' E.$, on a random line bet. secs. 11 and 14.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.90	Intersect N. and S. line 7 lks. S. of the cor. of secs. 11, 12, 13 and 14. Thence I run ✓ S. $89^{\circ} 55' W.$ on a true line bet. secs. 11 and 14 Over mountainous land through dense undergrowth; descend
80.00	Bottom of hollow 100 ft. below sec. cor. course N. 10° E.; ascend.
39.95	Set a sandstone, 18x10x6 ins., 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
45.00	Top of ridge 400 ft. above hollow, bears N. 10° E. and S. 10° W.; descend.
70.00	Bottom of hollow 500 ft. below ridge, course N. 10° E.; ascend.

Subdivision of T.17 S. R. 19 E. - Continued.

Chains.

79.90 The cor., of secs. 10, 11, 14 and 15.

Land, mountainous.

Soil, gravelly, 2nd rate.

No timber.

Undergrowth, sage, oak and deer brush.

Good grass for grazing.

Mountainous land or land covered with dense under-growth, 79.90 chs.

N. 0° 01' W. bet. secs. 10 and 11.

Over mountainous land through dense undergrowth; descend
40.00 Set a sandstone, 20x8x5 ins., 15 ins. in the ground,
for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; and raise a mound
of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits
impracticable.

65.00 Enter bottom of Hill Creek Canon, 250 ft. below sec.
cor. bears N.E. and S.W.

72.00 Hill Creek 10 lks. wide, 12 ins. deep, moderate current
course N.E.

75.00 Trail, bears N.E. and S.W.

76.00 Leave canon bottom bears N.E. and S.W. Ascend abruptly
over ledges.

80.00 Set a sandstone, 18x10x7 ins., 12 ins. in the ground,
for cor. of secs. 2, 3, 10 and 11 marked with 5 notches
on S. and 2 notches on E. edges; and raise a mound of
stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits
impracticable.

Land. mountainous.

Soil, gravelly and clay loam, 2nd and 3rd rate.

No timber.

Undergrowth, oak, sage and deer brush.

Good grass for grazing.

Mountainous land or land covered with dense under-growth, 80.00 chs.

Subdivision of T. 17 S. R. 19 E. - Continued.

Chains September 19, 1901: At this cor. I set off $1^{\circ} 33' N.$, on the decl. arc, and at 11 h 59 m. a.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ} 22' N.$

$N.89^{\circ} 55' E.$, on a random line bet. secs. 2 and 11.

40.00 Set temp. $\frac{1}{2}$ sec. cor.

79.88 Intersect N. and S. line at the cor. of secs. 1, 2, 11 and 12.

Thence I run

$S.89^{\circ} 55' W.$, on a true line bet. secs. 2 and 11.

Over mountainous land through dense undergrowth; ascend

36.25 Top of ridge 500 ft., above sec. cor. bears N. and S.; descend.

39.94 Set a sandstone, $18 \times 10 \times 6$ ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

64.00 Foot of descent 600 ft. below ridge bears $N.50^{\circ} E.$ and $S.50^{\circ} W.$.

66.00 Hill Creek 10 lks. wide, 5 inches deep, sandy bottom, moderate current, course $N.50^{\circ} E.$

70.00 Trail, bears with canon.

71.50 Leave canon bottom, bears $N.50^{\circ} E.$ and $S.50^{\circ} W.$; ascend over ledges.

79.88 The cor. of secs. 2, 3, 10 and 11.

Land. mountainous.

Soil, gravelly and rocky 2nd and 4th rate.

No timber.

Undergrowth, oak, service berry and deer brush.

Good grass for grazing.

Mountainous land or land covered with dense undergrowth, 79.88 chs.

$N.0^{\circ} 01' W.$, on a random line bet. secs. 2 and 3.

40.00 Set temp. $\frac{1}{2}$ sec. cor.

Subdivision of T. 17 S. R. 19 E.-Continued.

Chains	
79.70	Intersect N.bdy. of Tp. 2 lks. E.of the cor.of secs. 2,3,31 and 35, heretofore described. Thence I run S.0°02'E., on a true line bet. secs. 2 and 3. Over rolling mesa land, through dense undergrowth; descend gently.
39.70	Set a sandstone, 18x10x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 3 ft. base, 2 ft. high, W.of cor. Pits impracticable.
58.00	Edge of mesa, bears N.E. and S.W.;descend abruptly.
79.70	The cor. of secs. 2,3,10 and 11. Land, mountainous and mesa. Soil, clay loam and gravelly and rocky 2nd and 4th. rate. No timber. Undergrowth, sage, oak and deer brush. Good grass for grazing. Mountainous land or land covered with dense under- growth, 79.70 chs.

September 19, 1901.

11.50	September 20, 1901. At 7 h 59 m a.m., l.m.t., I set off 39°17'N. on the lat. arc; $17\frac{1}{4}'N.$ on the decl. arc; and determine a true meridian with the solar at the cor. of secs. 4,3,33, and 34, on S.bdy of Tp. heretofore described. Thence I run N.0°02'W., bet. secs. 33 and 34. Over mountainous land through dense undergrowth and scattering timber;descend.
30.00	Bottom of hollow 50 ft. below sec. cor. course N.30°E. A spring bears E.about 6 chs. from this point.Ascend.
40.00	Top of ridge 175 ft. above hollow, bears N.80°E. and S.80°W.;descend.
	Set a sandstone, 14x12x8 ins., 10 ins. in the ground,

Subdivision of T.17 S.R.19 E. - Continued.

- Chains for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on W. face; from which
 A pine. 10 ins. in diam, bears N. 30° E. 20
 lks. dist., marked $\frac{1}{2}$ S. 34 B.T.
 A pine. 10 ins. in diam, bears S. 45° W., 35
 lks. dist. marked $\frac{1}{2}$ S. 33 B.T.
- 47.00 Bottom of hollow. 175 ft. below ridge, course S. 60° E.;
 ascend.
- 77.50 Top of ridge 400 ft. above hollow bears E. and W.;
 descend.
- 80.00 Set a sandstone, 20x10x5 ins., 15 ins. in the ground,
 for cor. of secs. 27, 28, 33 and 34, marked with 1
 notch on S. and 3 notches on E. edges; and raise a mound
 of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits
 impracticable.
- Land, mountainous.
- Soil, clay loam and gravelly, 2nd and 3rd rate.
- Timber, scattering pine and aspen.
- Undergrowth, oak, service berry and deer brush.
- Good grass for grazing.
- Mountainous land or land covered with dense under-
 growth, 80.00 chs.
-
- East, on a random line, bet. secs. 27 and 34.
- 40.00 Set temp. $\frac{1}{2}$ sec. cor.
- 79.90 Intersect N. and S. line 11 lks. S. of the cor. of secs.
 26, 27, 34 and 35..
- Thence I run
 S. $89^{\circ} 55' W.$, on a true line bet. secs. 27 and 34.
 Over mountainous land through dense undergrowth; ascend
 .10 Top of ridge, bears N.W. and S.E.; descend.
- 33.50 Enter bottom of west fork of Hill Creek Canon, 400 ft.
 below ridge, course N. 30° E. and S. 30° W.
- 36.00 Trail, bears N. and S.
- 37.75 Creek in canon 2 lks. wide, 1 inch deep, course N. 20°
 E.
- 39.00 Leave canon bottom bears N. 20° E. and S. 20° W.; ascend.

Subdivision of T. 17 S. R. 19 E. - Continued.

Chains	
39.95	Set a sandstone, 18x12x4 ins. 12 ins. in the ground, for $\frac{1}{4}$ sec. cor marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
61.00	Top of ridge 400 ft. above canon bears N. 80° E. and S. 80° W. thence along north side of ridge,
79.90	The cor, of secs. 27, 28, 33 and 34. Land, mountainous. Soil, gravelly 3rd rate. No timber. Undergrowth, oak, service berry and deer brush. Good grass for grazing. Mountainous land, or land covered with dense under-growth, 89.90 chs.
	N. $0^{\circ}02'W.$, bet. secs. 27 and 28. Over mountainous land through dense undergrowth and scattering timber; descend.
29.00	Bottom of hollow 200 ft. below sec. cor. course N. 80° E.; ascend.
40.00	Set a sandstone, 18x10x7 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor. marked $\frac{1}{4}$ on W. face; from which A pine, 24 ins. in diam., bears S. 20° E. 30 lks dist., marked $\frac{1}{2}$ S. 27 B.T. A pine, 20 ins., diam. bears S. 37° W. 29 lks. dist., marked $\frac{1}{4}$ S. 28 B.T.
66.50	Top of ridge 400 ft. above hollow bears E. and W.; descend.
80.00	Set a sandstone, 22x14x6, ins., 16 ins, in the ground, for cor, of secs. 21, 22, 27 and 28, marked with 2 notches on S. and 3 notches on E. edges; from which An aspen 7 ins, diam., bears N. 23° E. 40 lks. dist., marked T. 17 S. R. 19 E. S. 22 B.T. An aspen, 6 ins. diam., bears S. 55° E. 27.5 lks. dist., marked T. 17 S. R. 19 E. S. 27 B.T.

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Subdivision of T.17 S. R. 19 E.- Continued.

Chains	An aspen 4 ins. diam. bears S.27°W.125 lks. dist. marked T.17 S.R.19 E.S.28 B.T. An aspen 4 ins. diam., bears N.45°W.175 lks. dist, marked T.17 S.R.19 E.S.21 B.T. Land, mountainous. Soil, clay loam and gravelly, 2nd and 3rd rate. Timber, scattering pine and aspen. Undergrowth, oak, sage and service berry, deer brush. Good grass for grazing. Mountainous land, or land covered with dense under-growth, 80.00 chs. September, 20, 1901: At the noon hour, the sky is overcast and solar observations are impossible.
40.00	N.89°55'E., on a random line bet. secs. 22 and 27. Set temp. $\frac{1}{2}$ sec. cor.
79.86	Intersect N. and S. line 5 lks. N. of the cor. of secs. 22, 23, 26 and 27. Thence I run S.89°57'W., on a true line bet. secs. 22 and 27. Over nearly level canon bottom through dense willows.
3.25	Hill Creek 8 lks. wide, 3 ins. deep, sandy bottom, sluggish current, course N.20°W.
4.75	Trail, bears with canon.
5.50	Leave canon bottom, bears N.30°W. and S.30°E.; ascend through dense undergrowth and aspen saplings.
39.93	Set a sandstone, 18x10x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor. marked $\frac{1}{4}$ on N. face; from which A pine, 7 ins. diam. bears N.10°E. 50 lks. dist. marked $\frac{1}{4}$ S.22 B.T. A sandstone boulder 20x20x15 ft. bears S.7° E.20 lks. dist. marked(x)B.O.
46.00	Leave aspen saplings bears N. and S.
60.00	Top of ridge 800 ft. above canon bears N. and S. descend
78.00	Bottom of hollow 50 ft, below ridge course N.; ascend.

Subdivision of T. 17 S. R. 19 E. - Continued.

Chains	
79.86	<p>The cor. of secs. 21, 22, 27 and 28.</p> <p>Land, mountainous.</p> <p>Soil, clay loam and gravelly, 2nd and 3rd rate.</p> <p>Timber, scattering aspen and pine.</p> <p>Undergrowth, willows, oak, sage and deer brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 79.86 chs.</p>
30.00	<p>N. 0° 02' W., bet. secs. 21 and 22.</p> <p>Over mountainous land through dense undergrowth; ascend.</p> <p>Top of ridge 200 ft. above sec. cor. bears N. 60° E. and S. 60° W.; descend. Enter scattering aspen timber.</p>
40.00	<p>Set a sandstone, 20x16x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; from which</p> <p>An aspen 4 ins. diam. bears N. 80° E. 15 lks. dist. marked $\frac{1}{4}$ S. 22 B.T.</p> <p>An aspen 4 ins. diam. bears N. 80° W. 4 lks. dist. marked $\frac{1}{4}$ S. 21 B.T.</p>
50.00	<p>A small spring bears E. 25 lks. dist. It drains north.</p>
60.00	<p>Bottom of canon 400 ft. below ridge course N. 60° E. Ascend.</p>
80.00	<p>Set a sandstone, 20x14x6 ins. 14 ins. in the ground, for cor. of secs. 15, 16, 21 and 22 marked with 3 notches on S. and 3 notches on E. edges; from which</p> <p>A mahogany, 8 ins. diam. bears N. 33° E. 20 lks. dist. marked T. 17 S. R. 19 E. S. 15 B.T.</p> <p>A mahogany, 6 ins. diam. bears S. 35° E. 40 lks. dist., marked T. 17 S. R. 19 E. S. 22 B.T.</p> <p>A mahogany, 8 ins. diam. bears S. 33° W. 120 lks. dist., marked T. 17 S. R. 19 E. S. 21 B.T.</p> <p>A pinion pine, 8 ins. diam. bears N. 47° W. 15 lks. dist. marked T. 17 S. R. 19 E. S. 16 B.T.</p> <p>This cor. is 400 ft. above hollow.</p>

Subdivision of T.17 S.R.19 E. Continued.

Chains Land, mountainous.

Soil, clay loam and gravelly, 2nd and 3rd rate.

Timber, scattering pine and aspen.

Undergrowth, sage, service berry and deer brush.

Good grass for grazing.

Mountainous land or land covered with dense under-growth, 80.00 chs.

September 20, 1901, At this cor. I set off $39^{\circ} 20' N.$ on the lat. arc; $1^{\circ} 06' N.$ on the decl. arc; and at 4h 30m p.m. l.m.t., determine a true meridian with the solar and mark a point thereof on a stone firmly set in the ground 5.00 chs. N. of cor.

At 7 h 30. p.m., l.m.t., I observe polaris at eastern elongation, in accordance with the Manual and mark a point in the line thus determined, by a tack driven in a wooden plug, set in the ground, east of the stone already set 5.00 chs. N. of cor.

September 20, 1901.

September 21, 1901: At 7 h 30 m a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ} 34.5'$ to the west, and mark a point in the true meridian thus determined, by cutting a small groove in the stone, already set 5.00 chs. N. of the cor.; this mark falls 0.30 ins. E. of the true meridian, established by the solar.

At 8 h 2m a.m., l.m.t., I set off $39^{\circ} 20' N.$ on the lat. arc $0^{\circ} 52'$ on the decl. arc, and mark a point in the true meridian, determined with the solar, by a cross on the stone already set 5.00 chs. N. of the cor.; this mark falls 0.25 ins. E. of the true meridian established by Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for true meridians respectively about $0^{\circ} 16'$ west and $0^{\circ} 13'$ east of the true meridian established by Polaris observation; therefore I conclude that the adjustments of the instrument is satisfactory.

The magnetic bearing of the true meridian at 7 h 30m

Subdivision of T. 17 S. R. 19 E. -Continued.

- Chains a.m., is $15^{\circ} 52.7'$, the angle thus determined reduced by the table page 100 of the Manual, gives the mean Mag.decl. $15^{\circ} 49'E$.
- From the cor. of secs. 15,16,21 and 22
I run
N. $89^{\circ} 57'E$., on a random line bet. secs. 15 and 22.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 79.98 Intersect N. and S.line 2lks. N.of the cor. of secs. 14,15,22 and 23.
Thence I run
S. $89^{\circ} 58'W$., on a true line bet. secs. 15 and 22.
Over mountainous land through dense undergrowth and scattering aspen saplings.
- 25.00 Leave scattering aspen; foot of descent, enter bottom of Hill Creek Canon 400 ft. below sec. cor.bears N. and S.
- 25.50 Hill Creek 10 lks. wide, 6 ins.deep, rocky bottom, rapid current, course north.
- 27.50 Trail in canon bears N. and S.
- 28.50 Leave canon bottom,bears N. and S.; ascend.
- 39.99 Set a sandstone, $24 \times 8 \times 6$ ins., 16 ins, in the ground , for $\frac{1}{4}$ sec. cor. marked $\frac{1}{2}$ om N.face; and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
- 79.98 The cor. of secs. 15, '16, 21 and 22.
Land, mountainous.
Soil, clay loam and gravelly, 2nd and 3rd rate.
Timber, aspen saplings.
Undergrowth; oak and deer brush.
Good grass for grazing:
Mountainous land or land covered with dense undergrowth, 79.98 chs.
-
- N. $0^{\circ} 02' W$., bet. secs. 15 and 16..
Over mountainous land,through dense undergrowth;ascend
- 1.50 Top of ridge 20 ft. above sec. cor. bears E. and W.;

Subdivision T. 17 S. R. 19 E. Continued.

Chains	descend,
20.00	Bottom of hollow 40 ft. below ridge; ascend.
40.00	Set a sandstone, 14x10x4 ins., 9 ins, in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
58.00	Top of ridge 100 ft. above hollow bears N.E. and S.W. descend.
80.00	Set a sandstone, 16x10x4 ins., 10 ins. in the ground, for cor. of secs. 9,10,15 and 16, marked with 4 notches on S. and 3 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, clay loam, 2nd rate. No timber. Undergrowth, oak, sage and deer brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth. 80.00 chs.
40.00	N. $89^{\circ} 58' E.$, on a random line bet. secs. 10 and 15. Set temp $\frac{1}{2}$ sec. cor.
80.00	Intersect N. and S. line at cor. of secs. 10,11,14 and 15. Thence I run S. $89^{\circ} 58' W.$, on a true line bet. secs. 10 and 15. Over mountainous land through dense undergrowth; ascend.
.50	Top of ridge, bears N. $10^{\circ} W.$ and S. $10^{\circ} E.$; descend abruptly
10.00	Foot of descent; enter bottom of Hill Creek Canon 200 ft. below ridge, bears N. $30^{\circ} E.$ and S. $30^{\circ} W.$.
13.00	Hill Creek 10 lks. wide, 6 ins. deep, course N. $25^{\circ} E.$.
14.50	Trail, bears with canon.
16.00	Leave canon bottom bears N. $30^{\circ} E.$ and S. $30^{\circ} W.$; ascend
40.00	Set a sandstone, 18x12x4 ins., 12 ins. in the ground,

Subdivision of T. 17 S. R. 19 E. Continued.

- Chains for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
 Enter aspen saplings.
- 44.50 A small spring 1 lks. wide, 1 inch. deep, on line, course N. 30° E.
- 56.00 Top of ridge, 800 ft. above canon, bears N. 15° E. and S. 15° W.; descend.
- 80.00 The cor. of secs. 9, 10, 15 and 16.
 Land, mountainous.
 Soil, clay loam, gravelly and rocky, 2nd., 3rd. and 4th. rate.
 Timber, aspen saplings.
 Undergrowth, deer brush, oak and sage.
 Good grass for grazing.
 Mountainous land or land covered with dense undergrowth, 80.00 chs.
- September 21, 1901, At the noon hour the sky is overcast and solar observations are impossible.
-
- N. $0^{\circ}02'$ W., bet. secs. 9 and 10.
 Over mountainous land through dense undergrowth; descend
- 40.00 Set a sandstone, 16x12x4 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 80.00 Set a sandstone, 18x10x10 ins., 12 ins. in the ground for cor. of secs. 3, 4, 9 and 10. Marked with 5 notches on S. and 3 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high. W. of cor. Pits impracticable.
 Land, mountainous.
 Soil, clay loam, and gravelly, 2nd and 3rd rate.
 No timber.
 Undergrowth, deer brush oak and sage.
 Good grass for grazing.
 Mountainous land or land covered with dense under-

Subdivision of T. 17 S. R. 19 E. - Continued.

Chains	growth, 80.00 chs.
	N. 89° 58' E., on a random line bet. secs. 3 and 10.
40.00	Set temp $\frac{1}{4}$ sec. cor.
80.04	Intersect the N. and S. line 5 lks. S. of the cor. of secs. 2, 3, 10 and 11. Thence I run, S. 89° 56' W., on a true line bet. secs. 3 and 10. Over mountainous land through dense undergrowth and scattering aspens. Ascend.
26.00	Top of steep ascent; edge of mesa 600 ft. above sec. cor. bears N. 50° E. and S. 30° W.; thence over rolling mesa; leave aspen saplings.
40.02	Set a sandstone, 18x12x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
70.00	Leave mesa, bears N. 30° E. and S. 10° W.; descend.
80.04	The cor. of secs. 3, 4, 9 and 10. Land, mountainous and rolling mesa. Soil, clay loam and gravelly, 2nd and 3rd rate. Timber, aspen saplings. Undergrowth, sage, deer brush and oak. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.04 chs.
	N. 0° 02' W., on a random line, bet. secs. 3 and 4.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.60	Intersect N. bdy, of Tp. 19 lks. E. of cor. of secs. 3, 4, 33 and 34, heretofore described. Thence I run, S. 0° 10' E. on a true line bet. secs. 3 and 4 Over rolling mesa land through dense undergrowth; descend gently.
15.00	Leave mesa, bears N. 30° E. and S. 30° W.; descend.

Chains

- 19.50 Spring, 2 lks. wide, 1 inch deep, on line, course N.
80° E.
- 33.00 Bottom of hollow 100 ft. below mesa, course N. 80° E.;
ascend.
- 39.60 Set a sandstone, 16x10x6 ins., 11 ins. in the ground,
for $\frac{1}{2}$ sec. cor. marked \pm on W. face; and raise a mound
of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits
impracticable.
- 79.60 The cor. of secn. 3, 4, 9 and 10.
Land, mountainous and rolling mesa.
Soil, clay loam and gravelly, 2nd and 3rd rate.
No timber.
Good grass for grazing.
Undergrowth, sage and deer brush.
Mountainous land or land covered with dense under-
growth, 79.60 chs.

September 21, 1901.

September 23, 1901; At 7 h 58 m a.m. l.m.t., I set off
39° 17' N., on the lat. arc; 0° 04' N. on the decl. arc;
and determine a true meridian with the solar at the
cor. of secn. 4, 5, 32 and 33, on S.bdy. of Tp., here-
before described.

- Thence I run
N. 0° 03' E., bet. secn. 32 and 33.
Over mountainous land through heavy timber; descend.
- 20.00 To point, from which a small spring bears East 100
lks. distant.
- 23.00 Bottom of hollow 100 ft. below sec. cor., creek 2 lks.
wide, 1 inch deep, course N. 70° E.; ascend.
- 40.00 Set a sandstone, 14x10x5 ins., 9 ins. in the ground,
for $\frac{1}{2}$ sec. cor. marked \pm on W. face; from which
An aspen, 8 ins. diam., bears S. 85° W. 45 lks.
dist. marked \pm S. 33, E.T.
An aspen, 8 ins. diam., bears N. 50° W. 30 lks.
dist. marked \pm S. 32 E.T.
- 50.00 Set a sandstone, 18x12x5 ins., 12 ins. in the ground.

Subdivision of T. 17 S. R. 19 E. Continued.

	<p>Chains for cor. of secs. 28, 29, 32 and 33, marked with 1 notch on S. and 4 notches on E. edges, from which</p> <p>An aspen, 10 ins. diam. bears N. 50° E. 39 lks. dist. marked T. 17 S. R. 19 E. S. 28 B.T.</p> <p>An aspen, 5 ins. diam. bears S. 44° E. 50 lks. dist. marked T. 17 S. R. 19 E. S. 33 B.T.</p> <p>An aspen, 7 ins. diam. bears S. 80° W. 66 lks. dist. marked T. 17 S. R. 19 E. S. 32 B.T.</p> <p>An aspen, 6 ins. diam. bears N. 65° W. 60 lks. dist. marked T. 17 S. R. 19 E. S. 29 B.T.</p> <p>Land, mountainous.</p> <p>Soil, gravelly and rocky, 2nd and 4th rate.</p> <p>Timber, pine and aspen.</p> <p>Good grass for grazing.</p> <p>Mountainous or heavily timbered land, 80.00 chs.</p>
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East, on a random line, bet. secs. 28 and 33.

- 40.00 Set temp. $\frac{1}{2}$ sec. cor.
- 78.70 Intersect N. and S. line at the cor. of secs. 27, 28, 33 and 34.
- Thence I run
- West on a true line bet. secs. 28 and 33.
- Over mountainous land through dense undergrowth and heavy timber. Ascend.
- 12.00 Top of ridge bears N. 50° W. and S. 80° E.; descend.
- 39.00 Bottom of hollow 200 ft. below ridge course S. 20° E. Ascend.
- 39.85 Set a sandstone, 18x10x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on N. face; from which
- An aspen, 4 ins. diam. bears S. 33° E. 15 lks.
dist. marked $\frac{1}{2}$ S. 33 B.T.
- An aspen, 4 ins. diam. bears N. 60° W. 30 lks.
dist. marked $\frac{1}{2}$ S. 28 B.T.
- 57.00 Top of ridge 200 ft. above hollow bears N. 10° W. and S. 10° E.; descend.
- 72.00 Bottom of hollow 150 ft. below ridge course S. 20° E. Ascend.

Subdivision of T. 17 S. R. 19 E. Continued.

Chains

75.00 Top of ridge, 40 ft. above hollow, bears N.10°W. and S.10°E.; descend.

79.70 The cor. of secs. 28, 29 32 and 33.

Land, mountainous.

Soil, clay loam and gravelly, 2nd and 3rd rate.

Timber, pine and aspen.

Undergrowth, deer brush, oak and sage.

Good grass for grazing.

Mountainous or heavily timbered land, or land covered with dense undergrowth, 79.70 chs.

N.0°03'W., bet. secs. 28 and 29.

Over mountainous land through dense undergrowth and scattering timber; ascend.

8.00 Top of ridge 40 ft. above sec. cor. bears N.W. and S.E.; descend.

18.00 Bottom of hollow 50 ft. below ridge, course S.20°E.

A spring drain 21ks.wide, 2 ins. deep in hollow. The spring bears west about 7 chs.dist.

22.25 Pole fence bears E. and W.

36.40 Fence bears E. and W.

40.00 Set a sandstone, 20x10x10 ins., 15 ins. in the ground for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on W. face; from which

An aspen, 10 ins.diam.bears N.85°E. 15 lks.
dist.marked $\frac{1}{4}$ S.28 B.T.

An aspen, 10 ins.diam.bears S.80°W. 27 lks.
dist.marked $\frac{1}{2}$ S.29 B.T.

50.00 Top of ridge 200 ft. above hollow bears E. and W.; descend. Leave timber.

80.00 Set a sandstone, 24x10x8 ins., 18 ins. in the ground for cor of secs. 20, 21, 28 and 29, marked with 2 notches on S. and 4 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.

Land, mountainous.

Soil, clay loam and gravelly 2nd and 3rd rate.

Subdivision of T. 17 S. R. 19 E. Continued.

- Chains Timber, pine and aspen.
 Undergrowth, deer brush, sage and oak.
 Good grass for grazing.
 Mountainous land, or land covered with dense undergrowth, 80.00 chs.
 September 23, 1901: At the noon hour the sky is overcast and solar observations are impossible.
-
- 40.00 East, on a random line bet. secs. 21 and 28.
 Set temp. $\frac{1}{2}$ sec. cor.
- 79.82 Intersect N. and S. line 10 lks. S. of the cor. of secs. 21, 22, 27 and 28.
 Thence I run
 S. $89^{\circ} 56' W.$, on a true line bet. secs. 21 and 28.
 Over mountainous land through dense undergrowth and scattering timber; ascend.
- 10.00 Top of ridge 150 ft. above sec. cor. bears N. and S.; descend.
- 23.00 Bottom of hollow 200 ft. below ridge course N. $10^{\circ} E.$; ascend.
- 39.91 Set a sandstone, 14x10x5 ins., 9 ins. in the ground, for $\frac{1}{2}$ sec. cor. marked $\frac{1}{4}$ on N. face; from which
 An aspen, 10 ins. diam. bears N. $15^{\circ} E.$ 20 lks.
 dist. marked $\frac{1}{2}$ S. 21 B.T.
 An aspen, 9 ins. diam. bears S. $5^{\circ} E.$ 25 lks.
 dist. marked $\frac{1}{4}$ S. 28 B.T.
- 40.10 Top of ridge 200 ft. above hollow, bears N. and S.
- 53.00 Bottom of hollow 150 ft. below ridge, course N. There is a corral in bottom of hollow about 2 chs. N. of line. Ascend.
- 57.00 A log cabin bears N. 3 chs. distant. (Joseph Overcamp's)
- 79.82 The cor. of secs. 20, 21, 28 and 29.
 Land, mountainous.
 Soil, clay loam and gravelly, 2nd and 3rd rate.
 Timber, pine and aspen.
 Undergrowth, deer brush, oak and service berry.

Subdivision of T. 17 S. R. 19 E. Continued.

Chains Good grass for grazing.

Mountainous land or land covered with dense undergrowth, 79.82 chs.

N.0°03'W.; bet. secs. 20 and 21.

Over mountainous land through dense undergrowth and scattering timber; descend.

13.90 Bottom of hollow 200 ft. below sec. cor. course N.60° E.; ascend.

40.00 Set a sandstone, 18x10x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; from which
An aspen, 8 ins. diam. bears S.70° E. 50 lks.
dist. marked $\frac{1}{4}$ S.21 B.T.
An aspen, 8 ins. diam. bears S.80° W. 60
lks. dist. marked $\frac{1}{4}$ S.20 B.T.

52.00 Top of ridge 250 ft. above hollow bears N.80° E. and S.80° W.; descend.

80.00 Set a sandstone, 22x10x8 ins., 14 ins. in the ground for cor. of secs. 16,17,20 and 21, marked with 3 notches on the S. and 4 notches on E. edges; from which
An aspen, 6 ins. diam. bears N.65° E. 65 lks.
dist. marked T.17 S.R.19 E.S.16 B.T.
An aspen, 10 ins. diam. bears S.22° E. 63 lks
dist. marked T.17 S.R.19 E.S. 21, B.T.
An aspen, 5 ins. diam. bears S.55° W. 60
lks. dist. marked T.17 S.R.19 E.S.20 B.T.
AN aspen, 6 ins. diam. bears N.50° W. 52
lks. dist. marked T.17 S.R.19 E.S.17 B.T.

Land. mountainous.

Soil, clay loam, 2nd rate.

Timber, aspen and mahogany.

Undergrowth, sage and deer brush.

Good grass for grazing.

Mountainous land or land covered with dense undergrowth, 80.00 chs.

Subdivision of T. 17 S. R. 19 E.-Continued.

Chains	N. $89^{\circ} 56' E.$, on a random line bet. secs. 16 and 21.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.00	Intersect N. and S. line 8 lks. N. of the cor. of sec's. 15, 16, 21 and 22.
	Thence I run
	S. $89^{\circ} 59' W.$, on a true line bet. 'secs.' 16 and 21.
	Over mountainous land, through dense undergrowth; ascend.
27.60	Pole fence bears N. $20^{\circ} W.$ and S. $20^{\circ} E.$
40.00	Set a sandstone, 20x14x5 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
45.25	Top of ridge, 100 ft. above sec. cor. bears N. $30^{\circ} E.$ and S. $30^{\circ} W.$
60.75	Bottom of hollow 150 ft. below ridge course N.
67.50	Top of ridge 150 ft. above hollow, bears N. and S.; descend.
80.00	The cor. of secs. 16, 17, 20 and 21. Land, mountainous. Soil, clay loam 2nd. rate. No timber. Undergrowth, sage and deer brush. Good grass for grazing. Mountainous land or land covered with dense undergrowth, 80.00 chs.

September 23, 1901.

September 24, 1901: At 8 h 3 m a.m., l.m.t., I set off $39^{\circ} 20' N.$ on the lat. arc; $0^{\circ} 19' S.$ on the decl. arc. and determine a true meridian with the solar at the cor. of secs. 16, 17, 20 and 21,

Thence I run

N. $0^{\circ} 03' W.$, bet. secs. 16 and 17.

Over mountainous land through dense undergrowth; descend.

4.00 Bottom of hollow course N. $30^{\circ} E.$ Ascend.

Subdivision of T.17 S. R. 19 E. - Continued.

Chains

18.00 Top of ascent, edge of mesa, bears N. 40° E. and S. 40° W.; ascend gently over rolling mesa.

40.00 Set a sandstone, 16x14x4 ins., 10 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

80.00 Set a sandstone, 18x10x9 ins., 12 ins. in the ground, for cor. of secs. 8, 9, 16 and 17, marked with 4 notches on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, clay loam and gravelly, 2nd and 3rd rate.

No timber.

Undergrowth, sage brush.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth, 80.00 chs.

N. 89° 59' E., on a random line bet. secs. 9 and 16.

40.00 Set temp. $\frac{1}{2}$ sec. cor.

80.06 Intersect the N. and S. line at the cor. of secs. 9, 10, 15 and 16.

Thence I run

S. 89° 59' W., on a true line bet. secs. 9 and 16.

Over mountainous land through dense undergrowth and scattering timber; descend.

19.50 Bottom of hollow 200 ft. below sec. cor. course N.; ascend

31.50 Top of ascent, edge of mesa, bears N. 10° E. and S. 20° W.

40.03 Set a sandstone, 16x8x6 ins., 10 ins. in the ground, for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

80.06 The cor. of secs. 8, 9, 16 and 17.

Land, mountainous and nearly level.

Soil, clay loam and gravelly, 2nd rate.

Timber, scattering aspens.

Subdivision of T. 17 S. R. 19 E. - Continued.

Chains Undergrowth, sage and deer brush,
Good grass for grazing.
Mountainous land or land covered with dense undergrowth, 80.06 chs.

N. $0^{\circ} 03'$ W., bet. secs. 8 and 9.

Over rolling mesa land, through dense undergrowth and scattering timber.

40.00 Set a sandstone, 15x8x4 ins., 9 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

80.00 Set a limestone, 18x14x4 ins., 11 ins. in the ground, for cor. of secs. 4, 5, 8 and 9, marked with 5 notches on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, rolling mesa.

Soil, gravelly, 2nd rate.

Timber, scattering aspen.

Undergrowth, sage and deer brush.

Good grass for grazing.

Land covered with dense undergrowth, 80.00 chs.

September, 24, 1901: At this cor. I set off $0^{\circ} 24'$ S. on the decl. arc; and at 0 h 01m P.M., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ} 22' N.$

N. $89^{\circ} 59' E.$, on a random line bet. secs. 4 and 9.

40.00 Set temp. $\frac{1}{2}$ sec. cor.

79.96 Intersect N. and S. line 5 lks. S. of the cor. of secs. 3, 4, 9 and 10.

Thence I run.

S. $89^{\circ} 57' W.$, on a true line bet. secs. 4 and 9.

Over mountainous land through dense undergrowth; descend.

Subdivision of T. 17 S.R. 19 E. - CONTINUED.

Chains

15.25 Creek 1 lk. wide, 1 inch deep, in bottom of hollow 125 ft. below sec. cor. course N.15°E.; ascend

27.50 Top of ascent, edge of mesa, bears N.15°E. and S.15°W. Thence over rolling mesa.

39.98 Set a sandstone, 18x6x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

79.96 The cor. of secs. 4,5,8 and 9.

Land, mountainous and nearly level.

Soil, gravelly 2nd rate.

No timber.

Undergrowth, oak, sage and deer brush.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth, 79.96 chs.

N.0°03'W., on a random line bet. secs. 4 and 5.

40.00 Set temp. $\frac{1}{2}$ sec. cor.

79.50 Intersect N.bdy of Tp. 14 lks. E. of the cor. of secs. 4,5,32 and 33,

Thence I run

S.0°09'E., on a true line bet. secs. 4 and 5.

Over mountainous land through dense undergrowth and scattering timber; descend.

18.00 Florence Canon 400 ft. below sec. cor. course W.; ascend.

37.00 Top of ascent, edge of mesa, bears E. and W. 400 ft. above canon; ascend gently.

39.50 Set a sandstone, 24x8x5 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on W. face; from which

An aspen 6 ins. diam. bears N.30°E. 200 lks. dist. marked $\frac{1}{2}$ S.4 B.T.

A mahogany 4 ins. diam. bears N.5°W. 175 lks. dist. marked $\frac{1}{2}$ S.5 B.T.

79.50 The cor. of secs. 4,5,32 and 33.

Subdivision of T. 17 S. R. 19 E.-Continued.

Chains.	Land, mountainous and nearly level. Soil, gravelly and rocky, 3rd and 4th rate. Timber, scattering aspen and mahogany. Undergrowth, sage and deer brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.50 chs.
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September 24, 1901.

September 25, 1901; At 7 h 57 m a.m., m.m.t., I set off $39^{\circ}17'N$ on the lat. arc; $0^{\circ}42'S$ on the decl. arc, and determine a true meridian, with the solar, at the cor. of secs. 5, 6, 31 and 32 on S.bdy. of Tp. heretofore described.

Thence I run

N. $0^{\circ}03'W$., bet. secs. 31 and 32.

Over mountainous land through dense undergrowth and scattering timber; ascend.

.70 Top of ridge bears N. $20^{\circ}W$. and S. $20^{\circ}E$.; descend.

31.00 Bottom of hollow 200 ft. below ridge, course S. $20^{\circ}E$.; ascend.

34.50 Top of ridge 50 ft. above hollow bears N. $80^{\circ}E$. and S. $60^{\circ}W$.; descend.

40.00 Set a sandstone, 14x10x5 ins., 10 ins, in the ground, for $\frac{1}{2}$ sec.cor. marked $\frac{1}{2}$ on W.face; from which

An aspen, 4 ins. diam. bears S. $20^{\circ}E$. 20 lks.

dist. marked $\frac{1}{2}$ S.32 B.T.

An aspen, 8 ins. diam. bears S. $80^{\circ}W$. 25 lks.

dist. marked $\frac{1}{2}$ S.31 B.T..

56.00 Bottom of hollow 250 ft. below ridge course N. $20^{\circ}E$. Descend.

77.00 Bottom of same hollow, creek 2 lks.wide, 2 ins. deep, course N. $20^{\circ}W$. This is head of Rattlesnake Canon. Ascend

80.00 Set a sandstone, 16x16x6 ins. 10 ins., in the ground, for cor. of secs. 29, 30, 31 and 32, marked with 1 notch on S. and 5 Notches on E.edges; and from which

An aspen, 4 ins. diam. bears N. $30^{\circ}E$. 50 lks. dist.

Subdivision of T. 17 S. R. 19 E. - Continued.

Chains.	marked T. 17 S. R. 19 E. S. 29 B.T.
	An aspen, 6 ins. diam. bears S. 30° E. 20 lks. dist. marked T. 17 S. R. 19 E. S. 32 B.T.
	An aspen, 4 ins. diam. bears S. 26° W. 19 lks. dist. marked T. 17 S. R. 19 E. S. 31 B.T.
	An aspen, 4 ins. diam. bears N. 10° W. 75 lks. dist. marked T. 17 S. R. 19 E. S. 30 B.T.
Land.	mountainous.
Soil,	gravelly 3rd rate.
Timber,	aspen.
Undergrowth,	deer brush and sage.
Good grass for grazing.	
Mountainous land or land covered with dense under-growth,	80.00 chs.
40.00	East, on a random line bet. secs. 29 and 32. Set temp $\frac{1}{4}$ sec. cor.
80.00	Intersect N. and S. line 40 lks. S. of the cor. of secs. 28, 29, 32 and 33, Thence I run S. 89° 56' W., on a true line bet. secs. 29 and 32.
16.50	Over mountainous land through heavy timber; descend. Bottom of hollow 100 ft. below sec. cor. course S. 10° E. ascend.
31.00	Top of ridge 200 ft. above hollow bears N. 15° W. and S. 15° E.; descend.
40.00	Set a sandstone, 16x12x5 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{2}$ on N. face; from which An aspen, 5 ins. diam. bears N. 19° E. 20 lks. dist. marked $\frac{1}{4}$ S. 29 B.T.
	An aspen, 4 ins., diam. bears S. 38° W. 32 lks. dist. marked $\frac{1}{4}$ S. 32 B.T.
44.50	Bottom of hollow 150 ft. below ridge course N. 30° W. A spring bears S. 30° E. about 7.50 chs.; ascend.
64.00	Top of ridge 200 ft. above hollow, bears N. and S.; descend.

Subdivision of T. 17 S. R. 19 E. - Continued.

Chains.

80.00 The cor. of secs. 29, 30, 31 and 32.

Land, mountainous.

Soil, gravelly, 2nd. rate.

Timber, aspen.

Undergrowth, deer brush and sage.

Good grass for grazing.

Mountainous or heavily timbered, land. 80.00 chs.

West. on a random line bet. secs. 30 and 31.

40.00 Set temp. $\frac{1}{2}$ sec. cor.

79.72 Intersect W.bdy. of Tp. at the cor. of secs. 25, 30,
31 and 36, heretofore described.

Thence I run.

East, on a true line bet. secs. 30 and 31.

Over mountainous land through dense undergrowth
and scattering timber; descend.

35.00 Bottom of hollow 350 ft. below sec. cor. course N.
40° W.

39.72 Set a limestone, 20x12x5 ins., 15 ins. in the ground
for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on N. face; from which

An aspen, 4ins. diam. bears N. 20° E. 12 lks.

dist. marked $\frac{1}{2}$ S. 30 B.T.

A long loaf pine, 8 ins. diam. bears S. 10° E.

25 lks. dist. marked $\frac{1}{4}$ S. 31 B.T.

70.00 Top of ridge 600 ft. above hollow bears N. 30° W. and
S. 20° E.; descend abruptly.

78.80 Bottom of Rattlesnake Canon 400 ft. below ridge, creek
2 lks. wide, 2 ins. deep in bottom, course N. 20° W.;
ascend.

79.72 The cor. of secs. 29, 30, 31 and 32.

Land, mountainous.

Soil, gravelly and rocky 2nd and 4th rate.

Timber, aspen and pine.

Undergrowth, deer brush and oak.

Good grass for grazing.

Subdivision of T. 17 S. R. 18 E. - Continued.

Chains. Mountainous land, or land covered with dense undergrowth, 79.72 chs.

September 25, 1901: At this cor. I set off $0^{\circ} 47' S.$ on the decl. arc; and at 11 h 58 m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ} 18'$ N.

N. $0^{\circ} 03' W.$, bet. secs. 29 and 30.

Over mountainous land through dense undergrowth and scattering timber; ascend.

32.00 Top of ridge 500 ft. above canon bears N. $35^{\circ} W.$ and S. $35^{\circ} E.$; descend. Leave scattering timber.

40.00 Set a sandstone, 17x9x6 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

49.00 Bottom of hollow 350 ft. below ridge, course N. $50^{\circ} W.$.

67.50 Top of ridge 500 ft. above hollow bears N. $80^{\circ} W.$ and S. $80^{\circ} E.$. Descend.

80.00 Set a limestone, 16x9x7 ins. 10 ins. in the ground, for cor. of secs. 19, 20, 29 and 30, marked with 2 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, gravelly and rocky 3rd. and 4th. rate.

Timber, scattering aspen.

Undergrowth, deer brush, oak and sage.

Good grass for grazing.

Mountainous land or land covered with dense undergrowth, 80.00 chs.

N. $89^{\circ} 56' E.$, on a random line bet. secs. 20 and 29.

40.00 Set temp. $\frac{1}{2}$ sec. cor.

79.92 Intersect N. and S. line at the cor. of secs. 20, 21, 28 and 29.

Thence I run

S. $89^{\circ} 56' W.$ on a true line bet. secs. 20 and 29.

Subdivision of T. 17 S. R. 19 E. - Continued.

Chains	Over mountainous land through dense undergrowth and scattering timber. Ascend.
4.50	Top of ridge, 100 ft. above sec. cor. bears N. and S.; descend.
15.00	Bottom of hollow 160 ft. below ridge, course N.E.; ascend.
39.96	Set a sandstone, 15x10x6 ins., 9 ins. in the ground, for $\frac{1}{4}$ sec.cor. marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
48.60	Top of ridge 500 ft. above hollow, bears N. 20° W. and S. 20° E.; descend. Leave scattering timber.
79.92	The cor. of secs. 19, 20, 29 and 30. Land. mountainous. Soil, gravelly and rocky 3rd and 4th rate. Timber, aspen. Undergrowth, deer brush and oak. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.92 chs.
40.00	West, on a random line bet. secs. 19 and 30; Set temp. $\frac{1}{4}$ sec. cor.
79.80	Intersect W.bdy. of Tp. 7 lks. N. of cor. of secs. 19 24, 25 and 30, heretofore described. Thence I run N. $89^{\circ} 57'$ E.on a true line, bet, secs. 19 and 30. Over mountainous land through dense undergrowth; descend.
39.80	Set a sandstone, 18x10x6 ins., 12 ins. in the ground for $\frac{1}{4}$ sec.cor. marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
57.50	Creek 4 lks. wide, 3 ins. deep, in bottom of Rattle-snake Canon 500 ft. below sec.cor. course N.;ascend abruptly.

Subdivision of T. 17 S. R. 19 E. - Continued.

Chains

79.80 The cor. of secs. 19,20,29 and 30.

Land, mountainous.

Soil, gravelly and rocky 3rd and 4th rate.

No timber,

Undergrowth, deer brush, oak and sage.

Good grass for grazing.

Mountainous land or land covered with dense under-growth, 79.80 chs.

September 25, 1901.

September 26, 1901: At 7 h 59 m a.m., l.m.t., I set off 39° 19' N. on the lat. arc; 1° 05' S. on the decl. arc; and determine a true meridian, with the solar at the cor. of secs. 19,20,29 and 30.

Thence I run

N. 0° 03' W. bet. secs. 19 and 20.

Over mountainous land through dense undergrowth; descend

14.50 Bottom of hollow 400 ft. below sec. cor. course W.
Ascend.

40.00 Set a sandstone, 22x6x6, ins. 16 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

71.00 Top of ridge, 600 ft. above hollow bears N. 40° W. and S. 40° E.; descend.

80.00 Set a sandstone, 18x6x6ins., 12 ins. in the ground, for cor. of secs. 17,18,19 and 20, marked with 3 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, gravelly and rocky 3rd and 4th rate.

No timber,

Undergrowth, deer brush, oak and sage.

Good grass for grazing.

Mountainous land or land covered with dense under-growth, 80.00 chs.

Subdivision of T. 17 S. R. 19 E. - Continued.

- Chains N.89° 56'E., on a random line bet. secs. 17 and 20.
40.00 Set temp. $\frac{1}{4}$ sec. cor.
79.98 Intersect N. and S. line 7 lks. N. of cor. of secx. 16,
17, 20 and 21.
Thence I run
S.89° 59'W., on a true line bet. secx. 17 and 20.
Over mountainous land through scattering timber and
dense undergrowth, descend.
2.00 Bottom of hollow 20 ft. below sec.cor.course N.E.
9.50 Top of ridge, 200 ft. above hollow, bears N.10°E. and
S.10°W.; descend abruptly over ledges.
35.00 Leave scattering timber.
39.99 Set a sandstone, 18x8x6 ins., 12 ins. in the ground,
for $\frac{1}{4}$ sec.cor.marked $\frac{1}{4}$ on N.face; and raise a mound
of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits
impracticable.
62.50 Bottom of canon 400 ft. below ridge, course N.60°W.
Ascend.
79.98 The cor.of secs. 17,18,19and 20.
Land, mountainous.
Soil, gravelly and rocky 3rd and 4th rate.
No timber.
Undergrowth, oak, mahogany and service berry.
Good grass for grazing.
Mountainous land or land covered with dense under-
growth, 79.98 chs.

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- S.89° 57'W., on a random line bet. secs. 18 and 19.
40.00 Set temp. $\frac{1}{2}$ sec. cor.
79.76 Intersect N. and S. line 5 lks. S.of the cor. of secs.
13,18,19 and 24, heretofore described.
Thence I run
N.89° 59'E., on a true line bet. secs. 18 and 19.
Over mountainous land through dense undergrowth;des-
cend abruptly over ledges.
12.50 Bottom of hollow 500 ft. below ridge; course N.50°E.
Ascend.

Subdivision of T. 17 S. R. 19 E. - Continued.

Chains

- 31.00 Top of ridge, 400 ft. above hollow bears N. 20° E. and S. 20° W.; descend abruptly.
- 39.76 Set a sandstone, 18x10x6 ins. 12 ins. in the ground, for $\frac{1}{2}$ sec. cor. marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base; $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 55.50 Enter cottonwood timber, bears N. 20° W. and S. 20° E.
- 56.00 Creek 6 lks. wide, 4 ins. deep in bottom of Rattlesnake Canon 600 ft. below ridge, course N. 20° W.; ascend.
- 62.00 Leave Cottonwood timber.
- 76.00 Top of ridge, 500 ft. above canon bears N. and S.; descend.
- 79.76 The cor. of secs. 17, 18, 19 and 20.
Land, mountainous.
Soil, gravelly and rocky 3rd and 4th rate.
Timber, cottonwood.
Undergrowth, deer brush, mahogany and oak.
Good grass for grazing.
Mountainous land or land covered with dense undergrowth, 79.76 chs.
September 26, 1901: At the noon hour the sky is overcast and solar observations are impossible.

N. $0^{\circ}03'$ W., bet. secs. 17 and 18.

- Over mountainous land through dense undergrowth; descend.
- 10.00 Bottom of hollow 200 ft. below sec. cor. course N. 60° W.
- 40.00 Set a sandstone, 16x14x4 ins., 10 ins. in the ground for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 45.00 Top of ridge, 600 ft. above hollow, bears N. 70° W. and S. 70° E.; descend.

Subdivision of T. 17 S. R. 19 E. - Continued.

Chains.	
65.00	Bottom of hollow, 200 ft, below ridge, course W.; ascend.
77.50	Top of ridge, 150 ft. above hollow, bears N.80°E. and S.80°W.; descend.
80.00	Set a sandstone, 18x8x6 ins., 12 ins. in the ground, for cor. of secs. 7,8,17 and 18, marked with 4 notches on S. and 5 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high W.of cor. Pits impracticable.
	Land, mountainous.
	Soil, gravelly and rocky 3rd and 4th rate.
	No timber.
	Undergrowth, deer brush, mahogany and oak.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.

	N.89°59'E., on a random line bet. secs. 8 and 17.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.00	Fall 5 lks. S.of cor. of secs. 8, 9, 16 and 17. Thence I run S.89°57'W., on a true line bet. secs. 8 and 17.
	Over rolling mesa through dense undergrowth; ascend gently.
27.50	Edge of mesa, bears N.and S.; descend.
40.00	Set a sandstone, 16x14x4 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
45.00	Bottom of hollow, 250 ft. below mesa, course S.15°W.; ascend.
68.00	Top of ridge, 400 ft. above hollow, bears N.60°E. and S.80°W. Descend.
80.00	The cor. of secs. 7, 8, 17 and 18. Land, mountainous and nearly level.

Subdivision of T. 17 S. R. 19 E. - Continued.

Chains	Soil, clay loam and gravelly, 2nd and 3rd rate. No timber. Undergrowth, sage, deer brush and oak. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
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September 26, 1901.

	September 27, 1901: At 8 h 3 m a.m., l.m.t., I set off $39^{\circ} 21' N.$ on the lat. arc; $1^{\circ} 29' S.$ on the decl. arc; and determine a true meridian with the solar, at the cor. of secs. 7, 8, 17 and 18. Thence I run S. $89^{\circ} 59' W.$, on a random line bet. secs. 7 and 18. 40.00 Set temp. $\frac{1}{4}$ sec. cor. 79.80 Intersect N. and S. line 2 lks. S. of cor. of secs. 7, 12, 13 and 18, on W.bdy. of Tp. heretofore described. Thence I run East, on a true line bet. secs. 7 and 18. Over mountainous land through dense undergrowth; descend abruptly. 26.00 Creek, 8 lks. wide, 6 ins. deep, in bottom of Rattlesnake Canon, 500 ft. below sec. cor., course N. $30^{\circ} W.$. Ascend abruptly. 39.80 Set a sandstone, $22 \times 7 \times 7$ ins., 16 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable. 79.80 The cor. of secs. 7, 8, 17 and 18. Land, mountainous. Very rough. Soil, gravelly and rocky 3rd and 4th rate. No timber. Undergrowth, deer brush, mahogany and oak. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.80 chs.
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Subdivision of T. 17 S. R. 19 E. - Continued.

Chains	N.0°03'W., bet. secs. 7 and 8. Over mountainous land through dense undergrowth and scattering timber; descend.
21.00	Bottom of hollow, 400 ft. below sec. cor. course S. 80°W.; ascend.
40.00	Set a sandstone, 24x9x6 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
45.25	Top of ridge, 450 ft. above hollow, bears N.70°E. and S.70°W.; descend.
63.00	Bottom of hollow, 150 ft. below ridge, course S.80°W Ascend.
70.30	Top of ridge, 80 ft. above hollow, bears N.60°W. and S.60°E.; descend.
80.00	Set a sandstone, 19x14x5 ins., 15 ins. in the ground, for cor. of secs. 5, 6, 7 and 8, marked with 5 notches on S. and 5 notches on E. edges; and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, gravelly and rocky, 3rd and 4th rate. Timber, scattering aspens. Undergrowth, deer brush, mahogany and sage. Good grass for grazing. Mountainous land or land covered with dense undergrowth, 80.00 chs.

N.89°57'E., on a random line bet. secs. 5 and 8.

40.00 Set temp $\frac{1}{2}$ sec. cor.

79.88 Intersect N. and S. line at the cor. of secs. 4,5,8 and 9.

Thence I run

S.89°57'W., on a true line bet. secs. 5 and 8.

Over rolling mesa land; descend gently, ~~through dense undergrowth.~~

14.00 Edges of mesa, bears N. and S.; descend.

Subdivision of T.17 S. R.19 E. -Continued.

Chains	
19.00	Creek, 2 lks. wide, 3 ins. deep, course N., in bottom of hollow; ascend.
32.00	Top of ascent, edge of mesa, bears N. and S. Thence over rolling mesa.
39.94	Set a sandstone, 22x14x5 ins., 16 ins. in the ground for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
65.00	Edge of mesa, bears N.E. and S.W.; descend.
79.88	The cor. of secs. 5, 6, 7 and 8. Land mountainous and nearly level. Soil, clay loam and gravelly. 2nd and 3rd rate. No timber. Undergrowth, sage, mahogany and deer brush. Good grass for grazing. Mountainous land or land covered with dense undergrowth, 79.88 chs.
	September 27, 1901: At this cor. I set off $1^{\circ}34' S.$ on the decl. arc, and at 11 h 59 m a.m., l.m.t., Observe the sun on the meridian, the resulting lat. is $39^{\circ}22' N.$
40.00	West. on a random line bet. secs. 6 and 7. Set temp. $\frac{1}{4}$ sec. cor.
79.64	Intersect W.bdy. of Tp. 5 lks. N. of cor. of secs. 1, 6, 7 and 12. Thence I run $N.89^{\circ}58'E.$, on a true line bet. secs. 6 and 7. Over mountainous land through dense undergrowth and scattering timber; ascend.
39.64	Set a sandstone, 17x9x6 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
66.00	Top of ridge, 1000 ft. above sec. cor. bears N.W. and

Subdivision of T. 17 S. R. 19 E. -Continued.

Chains	S.E.; descend.
75.00	Bottom of hollow, 100 ft, below ridge, course N.10°W. Ascend.
79.64	The cor. of secs. 5, 6, 7 and 8, Land, mountainous. Very rough. Soil, gravelly and rocky 3rd and 4th rate. Timber, scattering pine and aspen. Undergrowth, deer brush, mahogany and sage, Good grass for grazing. Mountainous land, or land covered with dense under-growth, 79.64 chs.
	N.0°03'W., on a random line, bet. secs. 5 and 6.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.70	Intersect N.bdy. of Tp. 10 lks. E.of the cor. of secs 5, 6, 31 and 32, heretofore described. Thence I run S.0°07' E. on a true line bet. secs. 5 and 6. Over mountainous land through dense undergrowth and scattering timber. Descend abruptly.
36.00	Creek 2 lks. wide, 2 ins. deep, in bottom of Florence Canon, 800 ft. below sec. cor., course S.80°W.; ascend very abruptly.
39.70	Set a sandstone, 24x9x6 ins. 18 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
79.70	The cor. of secs. 5, 6, 7 and 8. Land, mountainous. Very rough. Soil, rocky and gravelly, 3rd and 4th rate. Timber, scattering pine, aspen and mahogany. Undergrowth, deer brush, mahogany and sage. Good grass for grazing. Mountainous land or land covered with dense under-growth, 79.70 chs.

September 27, 1901.

Subdivision of T. 17 S. R. 19 E. - Concluded.

GENERAL DESCRIPTION.

This township is all mountainous except in the north central part there is a rolling mesa covering an area of about four sections. Hill Creek and Rattlesnake Canons are very rough, and the mountain ridges are very rough and high..

The soil ranges from rich sandy and clay loam in the bottoms of canons and hollows to gravelly and rocky on the high mountain ridges, thus making 2nd 3rd and 4th rate.

There is consideral timber in the south and west parts of the township ,and dense undergrowth nearly all over it .

Joseph Overcamp has a cabin in sec. 21.

There is no mineral in the township.

There is water is Hill Creek, Rattlesnake, and Florence Canons, as well as quite a number of small springs; thus making plenty of water for grazing purposes.

The entire township is covered with an abundant growth of rich and nutritious grasses ,but there are many cattle ,horses and sheep on it that keep the grass eaten down.

The township is mainly valuable for grazing purposes.

Andrew J. Stewart Jr.
U.S. Deputy Surveyors.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by
....., United States Deputy Surveyor, to assist in running, measuring, and
marking the lines and corners described in the foregoing field notes of the survey of
the tract of land in the state of
owing the respective capacities in which they acted:

....., Chainman.

....., Chainman.

....., Moundman.

....., Moundman.

....., Axeman.

....., Axeman.

....., Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted
....., United States Deputy Surveyor, in surveying all
those parts or portions of the

....., of the state of
....., meridian, of the tract of land
which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for

....., Chainman.

....., Chainman.

....., Moundman.

....., Moundman.

....., Axeman.

....., Axeman.

....., Flagman.

Subscribed and sworn to before me this
day of 180

RECEIVED
FEB 1 1800

6-150

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from United States Surveyor General for bearing date of the day of 189 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of of the meridian, in the which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions and the special written instructions of the United States Surveyor General for and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

John F. Stewart Jr.
United States Deputy Surveyor

Subscribed by said and sworn to before me }
this day of 189 }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Walter R. Johnson, March 1913.

The foregoing field notes of the survey of ~~the subdivision of Section 19~~ ~~of Township 19 North Range 19 East of the Salt Lake Base Meridian, Utah.~~

executed by *Andrew J. Stewart Jr.* under his contract No. *143*, dated *Dec 19, 1901*, 189 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward H. Peckell, Jr.
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in has been correctly copied from the original notes on file in this office.

United States Surveyor General

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BOOK A-291

FIELD NOTES

OF THE SURVEY OF THE

GREEN RIVER GUIDE MERIDIAN

through

Townships No. 16 South

Between Ranges Nos. 20 and 21 East

Of the SALT LAKE BASE AND Meridian,

in the STATE OF UTAH

AS SURVEYED BY

Andrew J. Stewart Jr., United States Deputy Surveyor,

Under his Contract No. 243, dated April 12, 1901, 18XX

Survey commenced September 28, 1901, 18XX

Survey completed September 29, 1901, 18XX

6-151

Aug 6. 50. 40'

10. 50. 00

12. 70'

BOOK #22

NAMES AND DUTIES OF ASSISTANTS.

William Mateon	Chairman
Harvey W. Cluff	Chairman
William L. Andrews	Chairman
William Wilde	Chairman
Oscar Mariotti	Chairman
Victor O. Craven	Flagman

Insubordinate affidants see book A, pp. 205 & 206

BOOK A-291

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20	21	22	23	24	25
31	32	33	34	35	36

Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, and do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., Chainman.

....., Chainman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., Moundman.

....., Moundman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., Axman.

....., Axman.

Subscribed and sworn to before me this }
day of , 189 }



I, , do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., Flagman

Subscribed and sworn to before me this }
day of , 189 }



Green River Guide Meridian, through Tps. 16 S., bet. Ranges 20 and 21 East

Survey commenced September 28, 1901, and executed with a W. and L.E. Gurley light mountain transit, No. 1, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other reading to single minutes of arc; which is also the least count of the latitude and declination arcs. The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, on May 29, 1901.

I examine the adjustments of the instrument and correct the level and collimation errors, then, to test the solar apparatus by comparing its indications resulting from solar observations made during p.m. and a.m. hours, with a true meridian, established by Polaris observation, I proceed as follows:

At the cor. of Tps. 16 and 17 S., Rs. 20 and 21 E., heretofore described, latitude $39^{\circ} 23' N.$, longitude $109^{\circ} 41' W.$, I set off $39^{\circ} 23' N.$ on the lat. arc; $2^{\circ} 0' S.$, on the decl. arc; and at 3 h 30 m p.m., l.m.t., determine a true meridian, with the solar, and mark a point thereof on a stone, set firmly in the ground, 5.00 chs. N. of the cor.

At 6 h 59 m p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark a point in the line thus determined, on a wooden plug driven in the ground, 5.00 chs. N. of the cor.

September 28, 1901.

September 29, 1901: At 6 h 59 m a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ} 34.3'$ to the west, and mark the true meridian thus determined by cutting a small groove in the stone, already set 5.00 chs. N. of the cor. on which the true meridian falls 0.33 ins. east of the true meridian determined with the solar.

At 7 h 28 m a.m., l.m.t., I set off $39^{\circ} 23' N.$ on the

~~green River Guide Meridian, through Tps. 16 S., bet. Rs. 20 and 21 East~~

Chains lat.arc; $2^{\circ}16' S.$ on the decl.arc; and mark a point in the true meridian determined with the solar, by a cross on the stone, already set 5.00 chs.N. of the cor. this mark falls 0.29 ins.east of the true meridian established by Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for true meridians respectively about $0'16''$ west and $0'14''$ east of the true meridian established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8 h 0 m a.m., is $15^{\circ}52.6' W.$, the angle thus determined reduced by the table page 100 of the Manual, gives the mean mag.decl. $15^{\circ}49'E.$

From the cor.of Tps.16 and 17 S., Rs. 20 and 21 E.;

I run

North, bet. secs. 31 and 36.

Over canon bottom through dense undergrowth;

1.50 Willow Creek, 10 lks.wide, 12 ins. deep, rapid current, banks 8 feet high, course N.E.

9.00 Foot of ledges bears N. $20^{\circ}E.$ and S. $20^{\circ}W.$; ascend abruptly

25.00 Top of ridge 280 ft. above canon, bears E. and W.

Descend abruptly over ledges.

35.50 Willow Creek 15 lks. wide, 10 ins. deep, rapid current, course N. $40^{\circ}W.$ Enter bottom of Willow Creek Canon.

Difference between measurements of 40.00 chs. by two sets of chainmen, is 12 lks.; position of middle point point By 1st set 39.94 chs.

By 2nd set 40.06 chs.; the mean of which is

40.00 Set a sandstone, 16x12x8 ins., 10 ins. in the ground for $\frac{1}{2}$ sec.cor.marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 3 ft. base, 2 ft. high, W.of cor. Pits impracticable.

44.00 Leave canon, ascend over ledges, bears N:W. and S.E.

Green River Guide Meridian, through Tps. 16 S., bet. Rs. 20 and 21 East.

Chains Ascend.

48.00 Top of rocky point, 150 ft. above canon, bears E. and W. Descend.

52.00 Enter bottom of Willow Creek Canon, 160 ft. below ridge, bears N.E. and S.W. Thence along canon bottom.

65.00 Pole fence extending across the canon bottom, bears E. and W.

71.00 Willow Creek, 12 lks. wide, 10 ins. deep, course N.E. Difference between measurements of 80.00 chs., by two sets of chainmen, is 8 lks.; position of middle point
By 1st set 79.96 chs.

By 2nd set 80.04 chs.; the mean of which is

80.00 Set a sandstone, 20x12x6 ins., 15 ins. in the ground, for cor. of secs. 25, 30, 31 and 36, marked with 5 notches on N. and 1 notch on S. edges; and raise a mound of stone 3 ft. base, 2 ft. high W. of cor. Pits impracticable Land, mountainous and level.

Soil, sandy loam and rocky 2nd and 4th rate.

No timber.

Undergrowth, oak, willows and sage.

Good grass for grazing.

Mountainous land or land covered with dense under-growth, 80.00 chs.

North, bet. secs. 25 and 30.

Over nearly level canon bottom through dense under-growth.

2.50 Leave canon, bears E. and W.; ascend.

3.75 Top of point bears E. and W.; descend.

6.10 Willow Creek, 12 lks. wide, 10 ins. deep, course N.W.; enter Willow Creek Canon bottom.

9.50 Same Creek course N. 20° E., 12 lks wide.

26.25 Same Creek course N. 20° W., 12 lks wide.

32.00 Same Creek course N. 40° E., 12 lks wide.

32.78 Foot of ledge 200 ft. high. Leave canon bottom bears N.E. and S.W.; ascend over ledges.

35.00 Top of ridge, 250 ft. above canon, bears E.

Green River Guide Meridian, through Tps. 16 S., bet. Rs. 20 and 21 East.

Chains	and W. Descend.
39.00	Foot of descent; enter Willow Creek Canon, bears N.W. and S.E. Difference between measurements of 40.00 chs. by two sets of chainmen is 10 lks.; position of middle point By 1st set 39.95 chs.
40.00	By 2nd set 40.05 chs.; the mean of which is Seta sandstone, 20x14x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor, marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high W.of cor. Pits impracticable.
50.00	Leave canon; ascend abruptly over ledges, bears N.E. and S.W.
60.00	Top of ridge, 400 ft. above canon, bears N.E. and S.W.; descend. Enter heavy timber, bears E. and W. Difference between measurements of 80.00 chs. by two set of chainmen, is 18 lks.; position of middle point By 1st. set is 79.91 chs.
80.00	By 2nd.set 80.09 chs.; the mean of which is Set a sandstone, 18x12x10 ins., 12 ins. in the ground for cor.of secs. 19,24,25 and 30, marked with 4 notches on N. and 2 notches on S.edges; from which A red pine, 6 ins.diam.bears N.80°E., 40 lks dist., marked T.16 S.R.21 E.S.19 B.T. A red pine, 12 ins.diam.bears S.30°E., 14 lks.dist.,marked T.16 S.R.21 E.S.30 B.T. A red pine, 12 ins.diam.bears S.50°W.38 lks dist.marked T.16 S.R.20 E. S.25 B.T. A cedar 10 ins.diam.bears N.70°W.35 lks. dist.marked T.16 S.,R.20 E.S.24 B.T. Land, mountainous and nearly level. Soil, sandy and rocky 2nd and 4th. rate. Timber, pine and cedar. Undergrowth, willows, oak and service berry. Good grass for grazing. Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.

Green River Guide Meridian, through Tps. 16 S. bet. Rs. 20 and 21 East.

Chains	North, bet. secs. 19 and 24.
	Over mountainous land, through heavy timber; descend.
2.00	Bottom of hollow, 20 ft. below sec.cor., course N.E. Ascend abruptly.
22.50	Top of ridge, 500 ft. above hollow, bears E. and W.; descend abruptly.
34.20	Bottom of hollow, 400 ft. below ridge, course E.; ascend. Leave heavy timber enter dense undergrowth. Difference between measurements of 40.00 chs by two sets of chainmen, is 14 lks.; position of middle point By 1st.set 39.93 chs.
	By 2nd.set 40.07 chs.; the mean of which is
40.00	Set a sandstone, 20x9x6 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor.marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 3 ft. base, 2 ft. high, W.of cor. Pits impracticable.
71.50	Top of ridge, 800 ft. above hollow, bears E. and W.; descend abruptly. Enter heavy timber bears E. and W. Difference between measurements of 80.00 chs. by two sets of chainmen, is 22 lks., position of middle point By 1st. set 79.89 chs.
	By 2nd.set 80.11 chs.; the mean of which is
80.00	Set a limestone, 18x12x5 ins., 12 ins. in the ground, for cor.of secs. 13, 1819 and 24, marked with 3 notches on on N. and 3 notches on S.edges; from which A red pine, 10 ins.diam.bears N.70° E. 65 lks.dist., marked T.16S.R.21E.S.18 B.T. A red pine, 12 ins.diam.bears S.50° E. 40 lks.dist., marked T.16 S.R.21 E.S.19 B.T. A red pine, 12 ins.diam.bears S.65° W. 40 lks.dist., marked T.16 S.R.20 E.S.24 B.T. A red pine, 8 ins.diam.bears N.30° W. 42 lks.dist., marked T.16 S.R.20 E.S.13 B.T. Land, mountainous, very rough. Soil, gravelly and rocky 3rd and 4th rate. Timber, pine and cedar. Undergrowth, oak and service berry,

Green River Guide Meridian, through Tps. 16 S. bet. Rs. 20 and 21 East.

Chains Good grass for grazing.

Mountainous or heavily timbered land or land covered with dense undergrowth, 80.00 chs.

September 29, 1901: At this cor. I set off $2^{\circ} 21' S.$ on the decl. arc; and at 11 h 58 m a.m., l.m.t., observe the sun on the meridian, the resulting latitude is $39^{\circ} 25' N.$

North, bet. secs. 13 and 18.

Over mountainous land, through heavy timber, descend abruptly.

18.00 Bottom of canon 800 ft. below sec.cor., course N. 80° E.; ascend abruptly over ledges.

Difference between measurements of 40.00 chs. by two sets of chainmen, is 12 lks.; position of middle point
By 1st.set 39.94 chs.

By 2nd.set 40.06 chs.; the mean of which is
40.00 Set a sandstone, 18x10x6 ihs., 12 ins. in the ground
for $\frac{1}{2}$ sec.cor. marked $\frac{1}{2}$ on W. face; from which

A pinion pine, 18 ins. diam. bears E. 60 lks.
dist., marked $\frac{1}{2}$ S. 18 B.T.

A red pine, 12 ins. diam. bears N. 80° W. 100
lks. dist., marked $\frac{1}{2}$ S. 13 B.T.

60.00 Top of ascent. Edge of mesa bears E. and W.

78.00 Leave mesa, bears E. and W.; descend.

Difference between measurements of 80.00 chs. by two sets of chainmen, is 26 lks.; position of middle point
By 1st.set is 79.87 chs.

By 2nd set 80.13 chs.; the mean of which is

80.00 Set a sandstone, 30x20x6 ins., 20 ins. in the ground,
for cor. of secs. 7, 12, 13 and 18, marked with 2 notches
on N and 4 notches on S. edges; from which

A pinion pine, 6 ins. diam. bears N. 60° E. 4
lks. dist. marked T. 16 S. R. 21 E. S. 7 B.T.

A pinion pine, 16 ins. diam. bears S. 65° E. 20
lks. dist., marked T. 16 S. R. 21 E. S. 18 B.T.

Green River Guide Meridian, through Tp. 16 S., bet. Rs. 20 and 20 East.

Chains	A pinion pine, 24 ins. diam. bears S. 68° W. 44 lks. dist. marked T. 16 S. R. 20 E. S. 13 B. T. A cedar, 6 ins. diam. bears N. 52° W. 51 lks. dist. marked T. 16 S. R. 20 E. S. 12 B. T.
	Land, mountainous and nearly level.
	Soil, sandy and rocky, 2nd and 4th rate.
	Timber, pine and cedar.
	Good grass for grazing.
	Mountainous or heavily timbered land, 80.00 chs.

North, bet. secs. 7 and 12.

Over mountainous land, through scattering timber;
descend.

38.50 Bottom of hollow, 400 ft. below sec. cor., course East;
ascend.

Difference between measurements of 40.00 chs. by two
sets of chainmen is, 14 lks.; position of middle point
By 1st. set is 39.93 chs.

By 2nd. set 40.07 chs.; the mean of which is
40.00 Set a sandstone, 20x10x4 ins., 15 ins. in the ground,
for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on W. face; from which

A cedar, 12 ins. diam. bears E. 30 lks. dist.,
marked $\frac{1}{2}$ S. 7 B. T.

A cedar, 10 ins. diam. bears N. 80° W. 40 lks.
dist., marked $\frac{1}{2}$ S. 12 B. T.

51.00 Top of ascent. Edge of mesa; enter heavy timber, bears
E and W. Thence over mesa.

65.00 Leave heavy timber and enter scattering timber and
dense undergrowth.

Difference between measurements of 80.00 chs. by two
sets of chainmen is 24 lks.; position of middle point
By 1st. set is 79.88 chs.

By 2nd. set 80.12 chs.; the mean of which is
80.00 Set a sandstone, 30x12x6 ins., 20 ins. in the ground,
for cor. of secs. 1, 6, 7 and 12, marked with 1 notch on
N. and 5 notches on S. edges; from which

Green River Guide Meridian, through Tp. 16 S. bet. RS. 20 and 21 East.

	A cedar, 12 ins. diam. bears N. 60° E. 140 lks. dist., marked T. 16 S. R. 21 E. S. 6 B. T.
	A cedar, 15 ins. diam. bears S. 50° E. 80 lks dist., marked T. 16 S. R. 21 E. S. 7 B. T.
	There are no other trees within limits and I raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous and nearly level.
	Soil, gravelly and rocky 2nd and 4th rate.
	Timber, pine and cedar.
	Undergrowth, sage.
	Good grass for grazing.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.
	North, bet. secs. 1 and 6.
	Over nearly level mesa, through scattering timber and dense undergrowth.
	Difference between measurements of 40.00 chs. by two sets of chainmen is 8 lks.; position of middle point
	By 1st. set 39.96 chs.
	By 2nd. set 40.04 chs.; the mean of which is
40.00	Set a sandstone, 16x10x6 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; from which
	A cedar, 6 ins. diam. bears N. 40° E. 90 lks. dist., marked $\frac{1}{4}$ S. 6 B. T.
	A cedar, 7 ins. diam., bears N. 65° W. 60 lks. dist., marked $\frac{1}{2}$ S. 1 B. T.
50.00	Edge of mesa, bears N. W. and S. E.; descend.
57.00	Bottom of hollow, 200 ft. below mesa; ascend. <i>ds. S. E.</i>
65.00	Top of ascent, edge of mesa, bears N. 80° W. and S. 80° E. Thence over mesa through heavy timber.
	Difference between measurements of 130.40 chs. by two sets of chainmen, is 32 lks., position of middle point
	By 1st. set is 130.24 chs.
	By 2nd. set 130.56 chs.; the mean of which is

Green River Guide Meridian, through Tp. 16 S., bet. Rs. 20 and 21 East.

Chains	
130.40	<p>Intersect 3rd Standard Parallel South 12.70 chs. East of the cor. of secs. 34 and 35 (Standard), Tp. 15 S., R. 20 E. which is a sandstone, 15x12x4 ins. above ground, firmly set and marked and witnessed as described by the surveyor general.</p> <p>Set a sandstone, 24x14x8 ins., 18 ihs. in the ground for closing corner of Tps. 16 S., Rs. 20 and 21 East, marked with 21 E. on E., 16 S.C.C. on S. and 20 E. on W. faces; with 6 grooves on E., S., and W. faces; from which</p> <p>A pinion pine, 8 ins. diam. bears S. 30° E. 50 lks. dist. marked T. 16 S. R. 21 E. S. 6 B. T.</p> <p>A pinion pine, 8 ins. diam. bears S. 60° W. 40 lks. dist. marked T. 16 S. R. 20 E. S. 1 B. T.</p>
	Land, mountainous and nearly level.
	Soil, sandy loam, 2nd rate.
	Timber, pine and cedar.
	Undergrowth, sage.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 130.40 chs.

September, 29, 1901.

Township 16 S., Rs. 20 and 21 East are mountainous, very rough. There is water in both of them and considerable scrubby timber. They are principally valuable for grazing purposes.

Andrew Stewart Jr.
U.S. Deputy Surveyor.

September 29, 1901.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Andrew J. Stewart Jr., United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the Green River Guide Meridian through Alps 16, 17, 18, 19, and 20 South between Ranges 20 and 21 E., showing the respective capacities in which they acted:

William Watson, Chainman.
Harvey M. Cluff, Chainman.
William S. Andrews, Chainman.
Arthur Wilde, Chainman.
Omero Marriotti, Axman.
Victor D. Cross, Axman.
Victor D. Cross, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Andrew J. Stewart Jr.,

United States Deputy Surveyor, in surveying all those parts or portions of the Green River Guide Meridian through Alps 16, 17, 18, 19, and 20 South between Ranges 20 and 21 E.

of the Salt Lake Base and meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Utah.

William Watson, Chainman.
William S. Andrews, Chainman.
Harvey M. Cluff, Chainman.
Arthur Wilde, Chainman.
Omero Marriotti, Axman.
Victor D. Cross, Axman.
Victor D. Cross, Flagman.

Subscribed and sworn to before me this 20th day of November, 18901 }



Hyatt F. Thomas
Notary Public

My commission expires
 March 26th - 1905.

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Andrew J. Stewart Jr., United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Edward H. Anderson, United States Surveyor General for Utah, bearing date of the 19 day of April 1901, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of Great River Guide Meridian through Tps. 16, 17, 18, 19, and 20 South, between Ranges 20 and 21 East.

Base and meridian, in the State of Utah, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for the District of Utah, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Andrew J. Stewart Jr.

United States Deputy Surveyor.

Subscribed by said Andrew J. Stewart Jr., and sworn to before me }
this 30th day of December 1902, 189 }



Edward H. Anderson

U. S. Surveyor-General
for Utah.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah March 19, 1903
The foregoing field notes of the survey of The Second River Guide,
Meridian township 16 South Range 20 East of the
Salt Lake Base Meridian, Utah.

executed by Andrew J. Stewart Jr.
under his contract No. 243, dated April 12, 1901, 189, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward H. Anderson

United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

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May June 1902. G.S. 291
4-679.

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BOOK A-291

FIELD NOTES

S. S. B.

OF THE SURVEY OF THE

WEST BOUNDARY

of

Township No. 16 South, Range No. 20 East,

Of the SALT LAKE BASE AND Meridian,

in the STATE OF UTAH

AS SURVEYED BY

Andrew J. Stewart Jr., United States Deputy Surveyor,

Under his Contract No. 243, dated April 12, 1901, 180

Survey commenced September 30, 1901, 180

Survey completed October 1, 1901, 180

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High 6-49.65'
Low 14.90'

14.90'

NAMES AND DUTIES OF ASSISTANTS.

William Matson.....	Chainman.....
Harvey M. Cluff.....	Chainman.....
William E. Andrews.....	Moundman.....
Arthur Wilde.....	Moundman.....
Omero Marriotti.....	Axman.....
Victor D. Cram.....	Flagman.....

In full uniform offidant to see book C. G. 195 Rec'd

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PRELIMINARY OATHS OF ASSISTANTS.

We, and

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by striking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

..... *Chairman.*

..... *Chairman.*

Subscribed and sworn to before me this }
day of , 189 }
V



We, and

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

..... *Moundman.*

..... *Moundman.*

Subscribed and sworn to before me this }
day of , 189 }
V



We, and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

..... *Axman.*

..... *Axman.*

Subscribed and sworn to before me this }
day of , 189 }
V



I, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of *Flagman.*

Subscribed and sworn to before me this }
day of , 189 }
V



West boundary of T. 16 S., R. 20 East.

Chains Survey commenced September 30, 1901, and executed with a W. and L.E. Gurley light mountain transit, No. 1, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other reading to single minutes of arc; which is also the least count of the latitude and declination arcs. The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, on May 29, 1901. I examine the adjustments of the instrument, and correct the level and collimation errors, then, to test the solar apparatus by comparing its indications resulting from solar observations made during p.m. and a.m. hours with a true meridian established by observation on Polaris, I proceed as follows; At the cor. of Tps. 16 and 17 S., Rs. 19 and 20 E., heretofore described, latitude $39^{\circ} 23' N.$, longitude $109^{\circ} 48' W.$, I set off $39^{\circ} 23' N.$ on the lat. arc; $2^{\circ} 47' S.$ on the decl. arc; and at 3 h 28 m p.m., l.m.t., determine a true meridian with the solar, and mark a point thereof on a stone, firmly set in the ground, 5.00 chs. N. of the cor. At 6 h 51m p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual and mark a point in the line thus determined by a tack driven in a wooden plug set in the ground east of the stone already set 5.00 chs. N of the cor.

September 30, 1901.

October 1, 1901; At 6 h 58 m a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ} 34.5'$ to the west and mark a point in the true meridian thus determined by cutting a small groove in the stone, already set 5.00 chs. N of the cor.; on which the true meridian falls 0.28 ins. east of the true meridian, established by Polaris observation.

At 7 h 59 m a.m., l.m.t., I set off $39^{\circ} 23' N.$ on the lat.

West boundary of T. 16 S., R. 20 East.- Continued.

Chains	<p>arc; $3^{\circ}02' S.$ on the decl. arc; and mark a point in the true meridian, determined with the solar, by a cross on the stone, already set 5.00 chs. N. of the cor.; this mark falls 0.34 ins. east of the true meridian established by Polaris observation.</p> <p>The solar apparatus by p.m. and a.m. observations defines positions for true meridians, respectively about $0'15''$ west and $0'18''$ east of the true meridian established by Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.</p> <p>The magnetic bearing of the true meridian, at 7 h 30 m a.m., l.m.t., is $15^{\circ} 51.6' W.$, the angle thus determined reduced by the table page 100 of the Manual, gives the mean mag.decl. $15^{\circ} 49' E.$</p>
	<p>From the above described corner I run</p>
	<p>North, bet. secs. 31 and 36.</p>
	<p>Over rolling mesa land through dense undergrowth.</p>
6.00	<p>Leave mesa, bears E. and W.; descend.</p>
40.00	<p>Set a sandstone, $18 \times 8 \times 6$ ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor. marked $\frac{1}{4}$ on W. face; from which</p> <p>A pinion pine, 14 ins. diam. bears E. 60 lks. dist. marked $\frac{1}{4}$ S. 31 B.T.</p>
	<p>There are no trees within limits in Sec. 36 and I raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p>
57.00	<p>Foot of descent. Enter Hill Creek Canon at its junction with a canon from south east bears N. $10^{\circ} E.$ and S. $20^{\circ} W.$ Thence over canon bottom.</p>
61.00	<p>Creek, 6 lks. wide, 5 ins. deep, from the canon south east, course N.W. Joins Hill Creek about 3 chs. below.</p>
80.00	<p>Set a sandstone, $18 \times 12 \times 8$ ins., 12 ins. in the ground, for cor. of secs. 31, 36, 25 and 30, marked with 5 notches on N. and 1 notch on S. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.</p>

West boundary of T. 16 S., R. 20 E. - Continued.

Chains	Pits impracticable. Land, mountainous and nearly level. Soil, gravelly, 2nd rate. No timber. Undergrowth, sage and oak. Good grass for grazing. Mountainous land or land covered with dense under-growth, 80.00 chs.
	North, bet, secs. 25 and 30. Over nearly level canon bottom through dense under-growth.
.40	Hill Creek 12 lks. wide, 6 ins. deep, rapid current, course N.15° E.
10.00	Leave canon bottom bears N.20° E. and S.20° W.; ascend. Enter scattering timber.
40.00	Set a sandstone, 18x10x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor.marked $\frac{1}{4}$ on W.face; from which A red pine, 18 ins.diam.bears E.10 lks. dist.marked $\frac{1}{4}$ S.30 B.T. A pinion pine, 20 ins.diam.bears S.80° W. 50 lks.dist. marked $\frac{1}{4}$ S. 25 B.T.
65.00	Top of ridge, 400 ft. above canon, bears E.and W.; descend
71.30	Bottom of hollow, 300 ft. below ridge course E.;ascend
80.00	Set a sandstone, 18x8x8 ins. 12 ins. in the ground, for the cor.of secs. 19,24,25 and 30, marked with 2 notches on S.and 4 notches on N.edges; from which A red pine,.20 ins.diam.,bears N.80° E. 70 lks.dist.marked T.16 S.R.20 E.S.19 B.T. A red pine, 15 ins.diam.bears S.20° E.35 lks.dist.marked T.16 S.R.20 E.S.30 B.T. A red pine, 24 ins.diam.bears S.2° W.40 lks.dist.marked T.16 S.R.19 E.S.25 B.T.
	There is no tree in Sec.24 and I raise a mound of stone, 2 ft.base, 1 $\frac{1}{2}$ ft. high, W.of cor.

West boundary of T. 16 S., R. 20 East.-Continued.

Chains land, mountainous and level.
Soil, sandy and rocky 2nd and 4th rate.
Timber, pine and cedar.
Undergrowth, oak and sage brush.
Good grass for grazing.
Mountainous land or land covered with dense under-growth, 80.00 chs.

North, bet. secs. 19 and 24.
Over mountainous land through heavy timber; ascend.
32.00 Top of ridge, 400 ft. above sec.cor.bears N.80°E. and S.80°W.; descend.
40.00 Set a sandstone, 10x10x6 ins., 12 ins in the ground, for 1 sec.cor.marked $\frac{1}{2}$ on W.face; from which
A pinion pine, 8 ins.diam.bears N.80°E. 26 lks.dist.marked $\frac{1}{2}$ S.10 E.T.
A cedar, 12 ins.diam. bears S.27°W. 60 lks. dist. marked $\frac{1}{2}$ S.24 E.T.
73.00 Bottom of hollow, 400 ft. below ridge, course N.80°E.
Ascend. Leave heavy and enter scattering timber.
60.00 Set a sandstone, 10x10x7 ins., 12 ins. in the ground, for cor.of secs. 13,18,19 and 24, marked with 3 notches on N. and 3 notches on S.edges; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W.of cor.
Fit impracticable.
Land, mountainous.
Soil, gravelly and rocky, 2nd and 4th rate.
Timber, pine and cedar.
Good grass for grazing.
Mountainous or heavily timbered land, 80.00 chs.
October 1, 1901: At the noon hour the sky is overcast but solar observations are impossible.

North, bet. secs. 23 and 18.
Over mountainous land through scattering timber; ascend abruptly.

West boundary of T. 16 S. R. 20 East. - Continued.

Chains	
22.50	Top of ridge, 600 ft. above sec.cor. bears N.E. and S.W. Descend abruptly.
31.00	Creek, 5 lks. wide, 2 ins. deep, in bottom of Post Canon, 700 ft. below ridge, course N. 70° E.; ascend.
40.00	Set a sandstone, 20x8x8 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
55.00	Top of ridge, 600 ft. above canon, bears N. 80° W. and S. 80° E.; descend.
80.00	Set a sandstone, 22x9x7 ins., 16 ins. in the ground, for cor. of secs. 7,12,13 and 18, marked with 2 notches on N. and 4 notches on S.edges; and raise a mound of stone, 3 ft. base, 2 ft. high, W.of cor. Pits impracticable. Land, mountainous. Soil, gravelly and rocky, 2nd and 4th rate. Timber, scattering pine and cedar. Good grass for grazing. Mountainous land, 80.00 chs.

North, bet. secs. 7 and 12.

Over mountainous land, through scattering timber and
dense undergrowth; descend.

12.50	Bottom of hollow, 200 feet below sec.cor. course N. 70° W.; ascend.
34.80	Top of ridge, 500 ft. above hollow, bears N. 80° W. and S. 80° E.; descend.
40.00	Set a sandstone, 17x9x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
64.30	Bottom of hollow, 400 ft. below ridge, course S. 80° E. Ascend abruptly.
80.00	Set a limestone, 18x17x5 ins., 12 ins. in the ground,

West boundary of T.16 S.R. 20 East. - Continued.

Chains for cor. of secs. 1, 6, 7 and 12, marked with 1 notch on N. and 5 notches on S. edges; from which

A pinion pine, 10 ins. diam., bears N. 46° E
52 lks. dist. marked T.16 S.R.20 E.S.6 B.T.

A pinion pine, 14 ins. diam., bears S. 81°
E. 20 lks. dist. marked T.16 S.R.20 E.S.7 B.T.

A pinion pine, 9 ins. diam. bears S. 34° W. 40
lks. dist., marked T.16 S.R.19 E.S.12 B.T.

A pinion pine, 7 ins. diam. bears N. 33° W. 47
lks. dist. marked T.16 S.R.19 E.S.1 B.T.

Land, mountainous.

Soil, gravelly and rocky, 2nd and 4th rate.

Timber, pinion pine and cedar.

Undergrowth, sage and oak.

Good grass for grazing.

Mountainous land, or land covered with dense under-growth, 80.00 chs.

North, bet. secs. 1 and 6.

Over mountainous land through heavy timber; ascend gradually.

- 35.00 Leave heavy and enter scattering timber, bears E. and W.
Top of ridge, bears N. 45° E. and S. 45° W. Descend gradually
- 40.00 Set a sandstone, 16x10x4 ins., 10 ins. in the ground,
for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on W. face; and raise a mound
of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits
impracticable.
- 45.00 Bottom of hollow, 50 ft. below ridge, course N. 60° E.
Ascend.
- 54.00 Enter heavy timber, bears E. and W.
- 95.00 Top of ridge, 200 ft. above hollow, bears N.E. and S.W.
Descend.
- 129.65 Intersect 3 rd. Standard Parallel South 14.90 chs. E.
of the Standard cor. of secs. 34 and 35, Tp. 15 S., R.
19 E. which is a sandstone, 5x14x4 ins. above ground,
firmly set and marked and witnessed as described by

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West boundary of T.16 S., R. 20 East- Continued.

Chains	the surveyor general.
	Set a sandstone, 24x12x6 ins. 18 ins. in the ground, for closing corner of Tp. 16 S., Rs. 19 and 20 E. marked C.C. on S.; with 6 grooves on S,E. and W.faces; from which
	A pinion pine, 12 ins. diam. bears S. 38° E. 30 lks. dist. marked T.16 S.R.20 E.S.6 B.T.
	A pinion pine, 12 ins. diam. bears S. 45° W. 60 lks. dist. marked T.16 S.R.19 E.S.1 B.T.
	Land, mountainous.
	Soil, sandy and gravelly 2nd and 3rd rate.
	Timber, pine and cedar.
	Good grass for grazing.
	Mountainous or heavily timbered land, 129.65 chs.

October 1, 1901.

Boundaries of T.16 S., R.20 E.

Latitudes, departures and closing errors.

Line designated	True bearing	Dist- ance.	Latitudes		Departures	
			N. chs.	S. chs.	E. chs.	W. chs.
E.bdy.T.16 S.,R.20 E.	South	530.40		530.40		
S.bdy.T.16 S.R.20 E.	S.89° 56' W.	479.30		.56		479.30
W.bdy.T.16 S.R.20 E.	North	529.65	529.65			
N.bdy.T.16 S.R.20 E.	East	477.80			477.80	
Convergency					.50	
Error in lat.			529.65	530.96	478.30	479.30
Error in dep.				529.65	1.37	478.39

For general description see subdivisions of this
township.

October 1, 1901.



U.S. Deputy Surveyor.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by
..... United States Deputy Surveyor, to assist in running, measuring, and
marking the lines and corners described in the foregoing field notes of the survey of
showing the respective capacities in which they acted:

..... Chainman.

..... Chainman.

..... Moundman.

..... Moundman.

..... Arman.

..... Arman.

..... Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted
....., United States Deputy Surveyor, in surveying all
those parts or portions of the

..... of the
..... meridian, of, which are represented
in the foregoing field notes as having been surveyed by him and under his direction; and that said survey
has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the
corner monuments established, according to the instructions furnished by the United States Surveyor
General for

..... Chainman.

..... Chainman.

..... Moundman.

..... Moundman.

..... Arman.

..... Arman.

..... Flagman.

Subscribed and sworn to before me this

day of , 189 }



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____, bearing date of the _____, United States Surveyor General for _____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____.

..... of the meridian, in the of which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor.

Subscribed by said _____, and sworn to before me }
this day of 189 }

000000
000000

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Wadsworth City, March 19, 1903, 189
The foregoing field notes of the survey of *The West Boundary of
the Township, 16th Range, 2d East of the 10th
Principal Meridian, & Meridian, Wadsworth*, _____.

executed by *Charles J. Stewart Jr.*
under his contract No. *243*, dated *March 19, 1901*, 189, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the
surveys they describe, are hereby approved.

E. H. Cushing
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in _____,
has been correctly copied from the original notes on file in this office.

United States Surveyor General

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Filed June 20, 1907, EBB

BOOK A-291

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION

of

Township No. 16 South, Range No. 20 East,

Of the Salt Lake Base and Meridian,

in the STATE OF UTAH

AS SURVEYED BY

Andrew J. Stewart Jr., United States Deputy Surveyor,

Under his Contract No. 243, dated April 12, 1901., 1888

Survey commenced October 2, 1901., 1889

Survey completed October 14, 1901., 1889

6-161

Right 63.08.34^v
Clos. " 69.00^v
J

NAMES AND DUTIES OF ASSISTANTS.

William Matson Chainman
Harvey M. Cluff Chainman
William Andrews Moundman
Arthus Wilde Moundman
Omero Merriotti Axman
Victor D. Cram Flagman

In preliminary off-hand sketch D.J. 195 P.S.D.

Volume

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#

R0291

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PRELIMINARY OATHS OF ASSISTANTS.

WE, and do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

, Chainman.

, Chainman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

, Moundman.

, Moundman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

, Axman.

, Axman.

Subscribed and sworn to before me this }
day of , 189 }



I, , do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

, Flagman.

Subscribed and sworn to before me this }
day of , 189 }



Subdivision of T. 16 S., R. 20 East.

Survey commenced October, 2.1901, and executed with a W. and L.E. Gurley light mountain transit, No.1, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, on May 29, 1901.

I examine the adjustments of the instrument, and correct the level and collimation errors, then, to test the solar apparatus by comparing its indications resulting from solar observations made during p.m. and a.m. hours, with a true meridian, established by observation on Polaris, I proceed as follows:

At the cor. of secs. 1, 2, 35 and 36 on S. bdy. of Tp., heretofore described, latitude $39^{\circ} 23' N.$, longitude $109^{\circ} 42' W.$, I set off $39^{\circ} 23' N.$ on the lat. arc; $3^{\circ} 33' S$ on the decl. arc; and at 3 h 58 m p.m., l.m.t., determine a true meridian, with the solar, and mark a point thereof on a stone, firmly set in the ground 5.00 chs. N. of the cor.

At 6 h 43m p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark a point in the line thus determined, by a tack driven in a wooden plug set in the ground, east of the stone already set in the ground, 5.00 chs N. of the cor.

October 2, 1901.

October 3, 1901: At 6 h 30 m a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ} 34.5'$ to the west, and mark a point in the true meridian, thus determined by cutting a small groove in the stone, already set 5.00 chs. N. of the cor. on which the true meridian falls 0.23 ins

11.22

Subdivision of T. 16 S.R. 20 East-Continued.

Chains	<p>east of the true meridian determined with the solar. At 8 h 3 m a.m., l.m.t., I set off $39^{\circ}23'N.$ on the lat. arc; $3^{\circ}49'S.$ on the decl. arc; and mark a point in the true meridian determined with the solar, by a cross on the stone, already set 5.00 chs. N. of the cor.; this mark falls 0.34 ins. east of the true meridian, established by Polaris observation.</p> <p>The solar apparatus by p.m. and a.m. observations, defines positions for true meridians, respectively about $0'12''$ west and $0'18''$ east of the true meridian established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.</p> <p>The magnetic bearing of the true meridian, at 8 h 30 m a.m., l.m.t., is $15^{\circ}50.8'W.$, the angle thus determined reduced by the table page 100 of the Manual gives the mean mag. decl. $15^{\circ}48'E.$</p>
	From the above described cor.
	I run
	$N.0^{\circ}01'W.$, bet. secs. 35 and 36.
	Over mountainous land, through scattering timber and dense undergrowth; descend.
33.00	Foot of descent; enter bottom of Pioche Canon, 400 ft. below sec.cor., bears $N.80^{\circ}E.$ and $S.80^{\circ}W.$
35.00	Pioche Creek, 5 lks. wide, 6 ins. deep, course $N.80^{\circ}E.$
38.00	Leave canon, bears $N.80^{\circ}E.$ and $S.80^{\circ}W.$; ascend.
40.00	Set a sandstone, 16x10x8 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec.cor. marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
72.00	Top of ascent. 800 ft. above canon, bears $N.60^{\circ}E.$ and $S.60^{\circ}W.$ Thence over rolling mesa.
80.00	Set a limestone, 18x10x6 ins., 12 ins. in the ground for cor. o f secs. 25, 26, 35 and 36, marked with 1 notch on S. and 1 notch on E. edges; from which

A pinion pine, 18 ins. diam bears $S.85^{\circ}E.65$

Subdivision of T. 16 S., R. 20 East. - Continued.

Chains	1ks.dist.marked T.16 S.R.20 E.S.36 B.T. A pinion pine, 12ins.diam.bears N.20° E.50 1ks.dist.marked T.16 S.R.20 E.S.25 B.T. A pinion pine 8 ins.diam.bears S.46° W.39 1ks.dist.marked T.16 S.R.20 E.S.35 B.T. A pinion pine, 24 ins.diam.bears N.86° W. 15 lks.dist.marked T.16 S.R.20 E.S.26 B.T. Land, mountainous and nearly level. Soil, gravelly loam and rocky, 2nd and 4th rate. Timber, cedar and pinion pine. Undergrowth, sage and oak. Good grass for grazing. Mountainous land or land covered with dense undergrowth, 80.00 chs.
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40.00	N. 89° 56' E., on a random line, bet. secs. 25 and 36. Set temp $\frac{1}{2}$ sec. cor.
80.00	Intersect Green River Guide Meridian, at the cor. of secs. 25, 30, 31 and 36, heretofore described. Thence I run S.89° 56' W., on a true line bet. secs. 25 and 36. Over canon bottom through dense undergrowth,
4.25	Leave canon bottom, bears N.20° E. and S.20° W.; ascend abruptly over ledges.
24.00	Ledge 30 ft. high, of sandstone, bears N. and S.
40.00	Set a sandstone, 18x14x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor.marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable. Enter scattering timber.
70.00	Top of ascent, 800 ft. above sec.cor.bears N.60° E. and S.60° W. Thence over rolling mesa.
80.00	The cor, of secs. 25, 26, 35 and 36. Land. mountainous and nearly level. Soil, gravelly and rocky, 2nd and 4th rate. Timber, pine and cedar. Undergrowth, sage brush.

Subdivision of T.16 S., R.20 East.- Continued.

	Chains	Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
		N.0°01'W., bet. secs. 25 and 26. Over rolling mesa land, through scattering timber and dense undergrowth.
40.00		Set a sandstone, 18x10x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor.marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
80.00		Set a sandstone, 20x12x4 ins., 15 ins. in the ground, for cor.of secs. 23,24,25 and 26, marked with 2 notches on S. and 1 notch on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft.high, W.of cor. Pits impracticable. Land, rolling mesa. Soil, sandy and gravelly loam, 2nd.rate. Timber, pine and cedar. Undergrowth, sage brush. Good grass for grazing. Land covered with dense undergrowth, 80.00 chs. October 3, 1901:At the noon hour the sky is overcast and solar observations are impossible.
		N.89°56'E., on a random line, bet. secs. 24 and 25.
40.00		Set temp. $\frac{1}{4}$ sec. cor.
80.06		Intersect Green River Guide Meridian, 10 lks. N.of the cor. of secs. 19,24,25 and 30, heretofore described. Thence I run West, on a true line, bet. secs. 24 and 25. Over mountainous land,through heavy timber; descend.
2.00		Bottom of hollow, 20 ft.below sec.cor.course N.60°E. Ascend abruptly.
36.00		Leave heavy timber, enter dense undergrowth, bears

Subdivision of T. 16 S., R. 20 East. - Continued.

Chains	N. and S.
38.80	Top of ascent, edge of mesa, 800 ft. above sec.cor. bears N.10° E. and S.10° W. Thence over rolling mesa.
40.03	Set a sandstone, 24x8x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
80.06	The corner of secs. 23, 24, 25 and 26. Land, mountainous and nearly level, Soil, gravelly and rocky, 2nd and 4th rate. Timber, pine and cedar. Undergrowth, sage. Good grass for grazing. Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.06 chs.

	N.0°01'W., bet. secs. 23 and 24. Over rolling mesa land, through scattering timber and dense undergrowth, descend gradually.
35.00	Edge of mesa, bears N.20° E. and S.20° W.; descend.
40.00	Set a sandstone, 18x10x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor. marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
47.25	Bottom of hollow, 400 ft. below mesa, bears N.40° E. Ascend.
67.80	Top of ridge, 200 ft. above hollow, bears N.80° E. and S.80° W.; descend.
76.00	Bottom of hollow, 200 ft. below ridge, course N.70° E. Ascend.
80.00	Set a limestone, 18x10x4 ins., 12 ins. in the ground, for cor.of secs. 13, 14, 23 and 24, marked with 3 notches on S. and 1 notch on E.edges; from which A pinion pine, 8 ins.diam.bears N.45° E. 70 lks.dist.marked T.16 S.R.20 E.S.13 B.T. A cedar, 6 ins.diam.bears S.54° E. 20 lks.

Subdivision of T.16 S., R.20 East.- Continued.

Chains	dist. marked T.16 S.R.20 E.S.24 B.T. A pinion pine, 12 ins. diam. bears S.18°W.62 lks. dist. marked T.16 S.R.20 E.S.25 B.T. A pinion pine, 9 ins. diam. bears N.47°W.18 lks. dist. marked T.16 S.R.20 E.S.14 B.T.
	Land, mountainous and nearly level.
	Soil, sandy loam and gravelly, 2nd and 3rd rate.
	Timber, pine and cedar.
	Undergrowth, sage brush.
	Goodgrass for grazing.
	Mountainous land or land covered with dense under-growth, 80.00 chs.
	East, on a random line, bet. secs. 13 and 24
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.22	Intersect Green River Guide Meridian, at the cor. of secs. 13,18,19 and 24, heretofore described. Thence I run
	West, on a true line, bet. secs. 13 and 24.
	Over mountainous land, through heavy timber; ascend abruptly.
30.50	Top of ascent, edge of mesa, 600 ft. above sec. cor. bears N. and S. Thence over rolling mesa. Leave timber.
40.11	Enter dense undergrowth Set a sandstone, 14x10x4 ins., 9 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
60.00	Edge of mesa, bears N.E. and S. 20°W. Descend.
70.50	Bottom of hollow, 100 ft. below mesa, course N.E.; ascend.
80.22	The cor. of secs. 13,14, 23 and 24. Land, mountainous.
	Soil, gravelly and rocky, 2nd and 3th rate.
	Timber, pine and cedar.
	Undergrowth, sage brush.
	Good grass for grazing.

Subdivision of T.16 S., R.20 East.- Continued.

Chains	Mountainous land, or land covered with dense undergrowth, 80.22 chs.
	October 3rd. 1901.
	October 4, 1901: At 8 h 0 m a.m., l.m.t., I set off $39^{\circ} 25' N.$ on the lat arc; $4^{\circ} 12' S.$ on the decl. arc; and determine a true meridian with the solar at the cor. of secs. 13,14,23 and 24. Thence I run $N.0^{\circ} 01' W.$, bet. secs. 13 and 14. Over mountainous land through scattering timber and dense undergrowth; ascend.
15.50	Top of ascent, edge of mesa, 400 ft. above sec. cor. bears E. and W. Thence over rolling mesa.
32.00	Leave mesa, bears $N.30^{\circ} E.$ and $S.30^{\circ} W.$; ascend.
40.00	Set a limestone, $20 \times 12 \times 5$ ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which A pinion pine, 10 ins. diam. bears $N.35^{\circ}$ $E.50$ lks. dist. marked $\frac{1}{4}$ S.13 B.T. A cedar, 10 ins. diam. bears $S.30^{\circ} W.40$ lkds. dist. marked $\frac{1}{4}$ S.14 B.T.
59.50	Top of ridge, 200 ft. above mesa, bears $N.25^{\circ} E.$ and S.W.; descend.
80.00	Set a sandstone, $20 \times 10 \times 5$ ins., 15 ins. in the ground, for cor. of secs. 11,12,13 and 14, marked with 4 notches on S. and 1 notch on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous and nearly level, Soil, gravelly, 2nd rate. Timber, pine and cedar. Undergrowth, sage brush. Good grass for grazing. Mountainous land or land covered with dense undergrowth, 80.00 chs.

Subdivision of T. 16 S., R. 20 East.- Continued.

Chains	East, on a random line, bet. secs. 12 and 13.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.30	Intersect Green River Guide Meridian, 23 lks. N. of the cor. of secs. 7, 12, 13 and 18, heretofore described Thence I run N. $89^{\circ} 50' W.$, on a true line bet. secs. 12 and 13. Over mountainous land, through heavy timber, ascend.
12.00	Top of ascent, bears N.W. and S.E. Thence over rolling mesa.
40.15	A sandstone boulder, 6x5x3 ft. above ground, in place on which I mark a (x) at the exact cor. point and $\frac{1}{2}$ on N. face for $\frac{1}{4}$ sec.. cor., from which A pinion pine, 10 ins. diam. bears N. $20^{\circ} E.$ 25 lks. dist. marked $\frac{1}{4}$ S. 12 B.T. A pinion pine, 12 ins. diam. bears S. $10^{\circ} E.$ 110 lks. dist. marked $\frac{1}{4}$ S. 13 B.T.
50.50	Leave mesa, bears N. $30^{\circ} E.$ and S. $30^{\circ} W.$; ascend.
68.00	Top of ridge, 200 ft. above mesa, bears N. $25^{\circ} E.$ and S. $25^{\circ} W.$; descend. Leave timber, enter dense undergrowth
80.30	The cor. of secs. 11, 12, 13 and 14. Land, mountainous and nearly level. Soil, gravelly 2nd rate. Timber, pine and cedar. Undergrowth, sage brush. Good grass for grazing. Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.30 chs.
	North $0^{\circ} 01' W.$, bet secs. 11 and 12. Over mountainous land, through dense undergrowth; descend.
27.00	Bottom of hollow, 100 ft. below sec. cor., course N. $5^{\circ} E.$ Ascend. Enter scattering timber.
40.00	Set a sandstone, 20x14x9ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which A pinion pine, 10 ins. diam. bears E. 10 lks.

Subdivision of T. 16 S., R. 20 East.- Continued.

Chains dist. marked $\frac{1}{2}$ S. 12 B.T.

A cedar, 6 ins. diam. bears N. 80° W. 15 lks.

dist. marked $\frac{1}{2}$ S. 11 B.T.

Enter heavy timber, leave dense undergrowth.

80.00 Set a sandstone, 17x10x6 ins., 12 ins. in the ground, for cor. of secs. 1, 2, 11 and 12, marked with 5 notches on S. and 1 notch on E. edges; from which

A pinion pine, 10 ins. diam. bears N. 30° E. 40 lks. dist. marked T. 16 S.R. 20 E.S. 1 B.T.

A cedar, 14 ins. diam. bears S. 30° E. 26 lks. dist. marked T. 16 S.R. 20 E. S. 12 B.T.

A pinion pine, 12 ins. diam. bears S. 32° W. 43 lks. dist. marked T. 16 S.R. 20 E.S. 11 B.T.

A pinion pine, 9 ins. diam. bears N. 35° W. 16 lks. dist. marked T. 16 S.R. 20 E.S. 2 B.T.

Land, mountainous.

Soil, gravelly, 2nd rate.

Timber, pine and cedar.

Undergrowth, sage brush.

Good grass for grazing.

Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.

S. 89° 50' E., on a random line, bet. secs. 1 and 12.

40.00 Set temp. $\frac{1}{2}$ sec. cor.

80.10 Intersect Green River Guide Meridian, 14 lks. S. of the cor. of secs. 1, 6, 7 and 12, heretofore described Thence I. run

N. 89° 56' W., on a true line, bet. secs. 1 and 12.

Over rolling mesa land, through heavy timber; ascend gradually.

10.00 Leave heavy timber, enter scattering timber and dense undergrowth.

40.05 Set a sandstone, 16x10x5 ins., 10 ins. in the ground for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. pits

Subdivision of T.16 S.R.20 East. - Continued.

Chains	impracticable.
65.00	Edge of mesa; descend. Bears N. and S.
76.00	Bottom of hollow, 300 ft. below mesa, course N. ascend. Leave dense undergrowth, enter heavy timber.
80.10	The cor. of secs. 1,2,11 and 12. Land, mountainous and nearly level. Soil, gravelly, 2nd rate. Timber, pine and cedar. Good grass for grazing. Undergrowth, sage brush. Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.10 chs.
	North 0°01'W., bet. secs. 1 and 2. Over mountainous land through heavy timber; ascend.
11.00	Top of ridge, 60 ft. above sec. cor. bears N.E. and S.W.; descend.
36.00	Bottom of hollow, 250 ft. below ridge, course N.30°E. Descend.
40.00	Set a sandstone, 17x9x5 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{2}$ on W. face; from which A pinion pine, 20 ins. diam. bears N.80°E. 43 lks. dist., marked $\frac{1}{2}$ S.1 B.T. A cedar, 7 ins. diam. bears N.20°W. 35 lks. dist. marked $\frac{1}{2}$ S.2 B.T.
60.30	Top of ridge, 200 ft. above hollow, bears N.60°E. and S.60°W.; descend.
92.00	Bottom of hollow, 300 ft. below ridge, course N.E.; ascend.
113.00	Top of ridge, 300 ft. above hollow, bears N.30°E. and S.W.; descend.
130.58	Intersect 3rd Standard Parallel South, 13.04 chs. E. of the Standard cor. of secs. 33 and 34, Tp. 15 S., R.20 E., which is a sandstone, 10x12x5 ins. above ground firmly set, and marked and witnessed as described by the surveyor general.

Subdivision of T.16 S., R.20 East.- Continued.

Chains Set a sandstone, 24x14x8 ins., 18 ins. in the ground, for closing corner of secs. 1 and 2, marked C.C. on S. with 1 groove on E. and 5 grooves on W. faces; from which

A pinion pine, 8 ins. diam. bears S. 30° E. 50 lks. dist. marked T.16 S.R.20 E.S.1 B.T.
A pinion pine, 8 ins. diam. bears S. 60° W. 40 lks. dist. marked T.16 S.R.20 E.S.2 B.T.

Land, mountainous,

Soil, gravelly, 2nd rate.

Timber, pine and cedar.

Good grass for grazing.

Mountainous or heavily timbered land, 130.58 chs.

October 4, 1901.

October 5, 1901: At 7 h 59 m a.m., l.m.t., I set off 39° 25' N. on the lat arc; 4° 35' S. on the decl. arc, and determine a true meridiam with the solar at the cor. of secs. 2, 3, 34 and 35 on S. bdy. of Tp., heretofore described.

Thence I run

N. 0° 01' W. bet. secs. 34 and 35.

Over canon bottom through dense undergrowth.

3.00 Leave canon bottom, bears N. 80° E. and S. 80° W.; ascend abruptly.

20.00 Top of ridge, 400 ft. above Pioche Canon, bears N.W. and S.E.; descend. Enter scattering timber.

39.75 Bottom of hollow, 200 ft. below ridge, course S. 35° E. Ascend.

40.00 Set a sandstone, 32x16x8 ins., 20 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; from which

A pinion pine, 12 ins. diam. bears N. 60° W. 75 lks. dist. marked $\frac{1}{4}$ S. 34 B.T.

A red pine, 8 ins. diam., bears S. 40° E. 30 lks. dist., marked $\frac{1}{4}$ S. 35 B.T.

66.50 Top of ridge, 300 ft. above hollow, bears N. 80° E and

Subdivision of T.16 S.R.20 East-. Continued.

- Chains S.80°W.; descend..
- 80.00 Bottom of hollow, 50 ft. below ridge, course N.E.
Set a sandstone, 16x8x4 ins., 11 ins. in the ground,
for cor.of secs. 26,27,34 and 35, marked with 1 notch
on S.and 2 notches on E edges; and raise a mound of
stone, 2 ft. base, 1½ ft. high, W.of cor. Pits
impracticable.
- Land, mountainous.
- Soil, gravelly and rocky, 2nd and 4th rate.
- Undergrowth,sage brush.
- Timber, pine and cedar.
- Good grass for grazing.
- Mountainous land or land covered with dense under-
growth, 80.00 chs.
- N.89° 56'E.,on a random line, bet.secs.26' and 35.
- 40.00 Set temp. $\frac{1}{2}$ sec. cor.
- 80.00 Intersect North and south line at the cor. of secs.
25,26,35 and 36
Thence I run
S.89° 56'W., on a true line, bet. secs. 26 and 35.
Over nearly level mesa,through heavy timber..
- 20.00 Leave timber, edge of mesa, bears N.and S.;descend.
- 29.00 Bottom of hollow, 50 ft. below mesa, course south;
ascend.
- 40.00 Set a sandstone, 18x14x4 ins., 12 ins in the ground
for $\frac{1}{2}$ sec.cor.,marked $\frac{1}{2}$ on N.face; and raise a mound
of stone, 2 ft. base, 1½ ft. high, N.of cor. Pits
impracticable.
- 41.50 Top of ridge, 40 ft. above hollow bears N.and S..
Descend. Enter dense undergrowth.
- 80.00 The cor. of secs. 26, 27, 34 and 35, in hollow.
Land, mountainous and nearly level.
Soil, gravelly, 2nd rate.
Timber, pine and cedar.
Good grass for grazing.
Mountainous or heavily timbered land, or land covered

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Subdivision of T. 16 S., R. 20 East. - Continued.

Chains with dense undergrowth, 80.00 chs.

North $0^{\circ}01'W.$ bet. secs. 26 and 27.
Over mountainous land through dense undergrowth,
ascend.

23.50 Top of ridge, 200 ft. above hollow bears $N.150^{\circ}E.$ and
 $S.50^{\circ}W.$; descend.

40.00 Set a limestone, $16 \times 10 \times 4$ ins., 11 ins. in the ground,
for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound
of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits
impracticable.

— 80.00 Bottom of hollow, 300 ft. below ridge, course $N.10^{\circ}E.$
Set a sandstone, $16 \times 10 \times 4$ ins., 11 ins. in the ground,
for cor. of secs. 22, 23, 26 and 27, marked with 2
notches on S. and 2 notches on E. edges; and raise a
mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
Pits impracticable.

Land, mountainous.

Soil, gravelly, 2nd rate.

No timber.

Undergrowth, sage brush.

Good grass for grazing.

Mountainous land or land covered with dense under-
growth, 80.00 chs.

October 5, 1901: At the noon hour the sky is overcast
and solar observations are impossible.

$N.89^{\circ}56'E.$ on a random line, bet. secs. 23 and 26.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.90 Intersect N. and S. line 2 lks. N. of the cor. of secs.
23, 24, 25 and 26.

Thence I run

$S.89^{\circ}57'W.$, on a true line bet. secs. 23 and 26.

Over rolling mesa land through dense undergrowth;
descend gently.

15.00 Edge of mesa, bears $N.20^{\circ}E.$ and $S.20^{\circ}W.$; descend.

14.

Subdivision of T. 16 S., R. 20 East. - Continued.

Chains	
29.00	Bottom of hollow, 300 ft. below mesa, course N. 30° E.
32.00	Corral, 2 chs. in diam. on line.
39.95	Set a sandstone, 20x14x4 ins., 15 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base. $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
67.50	Top of ridge, 300 ft. above hollow, bears N. 10° E. and S. 10° W.; descend.
79.90	The cor. of secs. 22, 23, 26 and 27 in bottom of hollow Land, mountainous and nearly level. Soil, gravelly 2nd rate. Timber, none. Undergrowth, sage brush. Good grass for grazing. Mountainous land or land covered with dense under- growth, 79.90 chs.

North, 0° 01' W. bet. secs. 22 and 23.

Over mountainous land through scattering timber; ascend

- 23.00 Top of ridge, 150 ft. above sec. cor. bears N. 30° E.
and S. 30° W. Descend.
- 33.00 Bottom of hollow, 150 ft. below ridge, course N. 30° E.
Ascend.
- 40.00 Set a sandstone, 18x8x4 ins. 12 ins. in the ground,
for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on W. face; from which
A pinion pine, 16 ins. diam. bears S. 20° E. 30
lks. dist. marked $\frac{1}{4}$ S. 23 B.T.
A cedar, 14 ins. diam. bears N. 60° W. 25 lks.
dist., marked $\frac{1}{2}$ S. 22 B.T.
- 60.00 Top of ridge, 200 ft. above hollow, bears N. 25° E.
and S. 25° W.; descend.
- 80.00 The point for corner falls in deep wash in bottom of
hollow, 200 ft. below ridge, course N. 20° W.
Note. It would be impossible to perpetuate the corner
in this wash therefore at point 20 lks. east of the
true corner point I

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Subdivision of T.16 S., R.20 East.- Continued.

Chains. Set a sandstone, 20x10x4 ins., 15 ins. in the ground for witness corner to cor. of secs. 14,15,22 and 23, marked W.C., on N.E. face; with 3 notches on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
Land, mountainous.
Soil, gravelly, 2nd rate.
Timber, pine and cedar.
Good grass for grazing.
Mountainous land, 80.00 chs.

N. $89^{\circ}57' E.$, on a random line bet. secs. 14 and 23.

From true corner point of secs. 14,15,22 and 23.

40.00 Set temp. $\frac{1}{2}$ sec. cor.

79.96 Intersect N-and S.line 8 lks.N.of the cor. of secs. 13,14,23 and 24.

Thence I run

West, on a true line, bet, secs. 14 and 23.

Over mountainous land through dense undergrowth and scattering timber; descend.

8.50 Bottom of hollow, 20 ft. below sec. cor. course S.E.; ascend abruptly.

39.98 Set a sandstone, 24x14x4 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high. N.of cor. Pits impracticable.

55.00 Top of ridge, 500 ft. above hollow, bears N. $10^{\circ}W.$ and S. $10^{\circ}E.$; descend.

79.76 The witness corner of secs. 14,15,22 and 23.

79.96 The true point for cor. of secs. 14,15,22 and 23.
In bottom of hollow, 500 ft. below ridge.

Land, mountainous.

Soil, gravelly, 2nd rate.

Timber, cedar and pinion pine,

Undergrowth, sage brush.

Good grass for grazing.

Mountainous land or land covered with dense under-

Subdivision of T. 16 S.R. 20 East. - Continued.

Chains	growth, 79.96 chs.
	October 5, 1901.
	October 6, 1901: At 8 h 2 m a.m., l.m.t., I set off $39^{\circ} 25' N.$ on the lat. arc; $6^{\circ} 58' S.$ on the decl. arc; and determine a true meridian, with the solar, at the cor. of secs. 14, 15, 22 and 23. Thence I run from true corner point of secs. 14, 15, 22 & 23. $N. 0^{\circ} 01' W.$ bet. secs. 14 and 15. Over mountainous land through scattering timber and undergrowth; ascend.
40.00	Set a limestone, $18 \times 10 \times 6$ ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
46.00	Top of ridge, 500 ft. high, above hollow bears $N. 30^{\circ} W.$ and $S. 30^{\circ} E.$; descend.
80.00	Set a sandstone, $15 \times 10 \times 6$ ins. 10 ins. in the ground, for cor. of secs. 10, 11, 14 and 15, marked with 4 notches on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, gravelly, 2nd rate. Timber, pine and cedar. Undergrowth, sage brush. Very little grass. Mountainous land, 80.00 chs.
	East, on a random line bet. secs. 11 and 14.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.00	Intersect N. and S. line at the cor. of secs. 11, 12, 13 and 14. Thence I run West, on a true line bet. secs. 11 and 14. Over mountainous land through scattering timber and

Subdivision of T. 16 S.R. 20 East. / Continued.

Chains	and scattering undergrowth; descend.
9.00	Bottom of hollow, 50 ft. below sec. cor. course N.15° E.; ascend.
40.00	Set a limestone, 16x8x8 ins. 11 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
46.20	Top of ridge, 500 ft. above hollow, bears N. 10° E. and S.10° W.; descend.
70.30	Bottom of hollow, 350 ft. below ridge, course N.; ascend.
80.00	The cor, of secs. 10,11,14 and 15. Land, mountainous. Soil, gravelly, 2nd rate. Timber, cedar and pine. Undergrowth, sage brush. Very little grass. Mountainous land, 80.00 chs.
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North 0°01'W., bet. secs. 10 and 11.	
Over mountainous land through scattering timber and undergrowth, descend.	
40.00	Set a sandstone, 18x6x6 ins., 12 ins. in the ground for $\frac{1}{2}$ sec. cor.,marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
54.00	Bottom of hollow, 200 ft. below sec. cor., course N. E.; ascend.
80.00	Set a sandstone, 22x10x10 ins., 16 ins. in the ground for cor. of secs. 2,3,10 and 11, marked with 5 notches on S.and 2 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable. Land, mountainous. Soil, gravelly, 2nd rate. Timber, pine and cedar.

Subdivision of T. 16 S. R. 20 East.- Continued.

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| Chains | <p>Undergrowth, sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, 80.00 chs.</p> <p>October, 6, 1901: At this cor. I set off $75^{\circ} 05' S.$ on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ} 27' N.$</p> |
| | <p>East, on a random line, bet. secs. 2 and 11.</p> <p>40.00 Set temp. $\frac{1}{2}$ sec. cor.</p> <p>79.88 Intersect N and S.line, 5 lks. S.of the cor. of secs. 1,2,11 and 12.</p> <p>Thence I run
 $S.89^{\circ} 58' W.$, on a true line, bet, secs. 2 and 11.
 Over mountainous land through heavy timber; ascend.</p> <p>9.00 Top of ridge, 100 ft. above sec.cor. bears N.E. and S.W.; descend.</p> <p>24.00 Bottom of hollow, 300 ft. below ridge, course N.30° E.; ascend.</p> <p>39.94 Top of ridge, 350 ft. above hollow,bears N.10°E. and S.10°W.; descend.
 Set a sandstone, 18x5x5 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor.marked $\frac{1}{4}$ on N.face; from which
 A cedar, 20 ins.diam.bears N.30° E. 20 lks.
 dist.marked $\frac{1}{2}$ S.2 B.T.
 A cedar. 12 ins.diam.bears S.16° W. 43 lks.
 dist.marked $\frac{1}{2}$ S.11 B.T.</p> <p>67.00 Bottom of hollow, 400 ft. below ridge, course N.; ascend. Leave heavy, enter scattering timber.</p> <p>79.88 The cor. of secs. 2,3,10 and 11.
 Land, mountainous.
 Soil, gravelly, 2nd rate.
 Timber, pine and cedar.
 Good grass for grazing.
 Mountainous or heavily timbered land, 79.88 chs.</p> |

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Subdivision of T. 16 S. R. 20 East.- Continued.

Chains	North 0°01' W. bet. secs. 2 and 3.
	Over mountainous land through scattering timber; ascend.
27.50	Top of ridge, 200 ft. above sec. cor. bears N. 30° E. and S. 30° W. Descend.
40.00	Set a sandstone, 17x9x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
56.50	Bottom of hollow, 200 ft. below ridge, course N.W.; ascend, gently along side of hollow. Enter heavy timber.
87.00	Bottom of Dry Cor. same as last crossed, course N. 20° E.; ascend.
110.00	Top of ascent, edge of mesa, bears N. 10° E. and S. 20° W. Thence over rolling mesa.
130.64	Intersect 3rd Standard Parallel South 13.40 chs.E. of the Standard cor. of secs. 32 and 33, Tp. 15 S., R. 20 E., which is a sandstone, 7x14x4 ins. above ground firmly set, and marked and witnessed as described by the surveyor general. Set a sandstone, 18x12x7 ins., 12 ins. in the ground, for closing cor. of secs. 2 and 3, marked with C.C. on S., 2 grooves on E. and 4 grooves on W. faces; from which A red pine, 12 ins. diam. bears S. 30° E. 60 lks dist. marked T. 16 S. R. 20 E. S. 2 B. T. A pinion pine, 20 ins. diam. bears S. 33° W. 43 lks. diat. marked T. 16 S. R. 20 E. S. 3 B. T. Land, mountainous and nearly level. Soil, gravelly and rocky 2nd and 4th rate. Timber, cedar and pine. Good grass for grazing. Mountainous or heavily timbered land, 130.64 chs.

October 6, 1901.

Subdivision of T.16 S. R. 20 East.- Continued.

Chains October 7, 1901: At 7 h 59 m a.m., l.m.t., I set off
39° 23' N. on the lat. arc; 5° 21' S. on the decl. arc; and
determine a true meridian, with the solar, at the cor.
of secs. 3, 4, 33 and 34 on S. bdy. of Tp., heretofore
described.

Thence I run

N. 0° 02' W., bet. secs. 33 and 34.

Over mountainous land, through heavy timber; ascend.

16.48 Top of ridge, 200 ft. above sec. cor. bears N. 30° E. and
S. 70° W. Leave heavy timber. Descend.

35.75 Bottom of hollow, 150 ft. below ridge, course N. 20° E.

Ascend.

40.00 Set a sandstone, 14x10x6 ins., 9 ins. in the ground,
for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound
of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits
impracticable.

65.00 Top of ridge, 200 ft. above hollow, course N. 20° E. and
S. 20° W.; descend.

80.00 Set a limestone, 18x12x12 ins., 12 ins. in the ground,
for cor. of secs. 27, 28, 33 and 34, marked with 1 notch
on S. and 3 notches on E. edges; and raise a mound of
stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits
impracticable.

Land, mountainous.

Soil, sandy and gravelly, 2nd and 3rd rate.

Timber, pine and cedar.

Good grass for grazing.

Mountainous or heavily timbered land, 80.00 chs.

N. 89° 56' E., on a random line bet. secs. 27 and 34.

40.00 Set temp. $\frac{1}{2}$ sec. cor.

80.30 Intersect N. and S. line 24 lks. N. of the cor. of secs.
26, 27, 34 and 35.

Thence I run

N. 89° 54' W., on a true line, bet. secs. 27 and 34.

Over mountainous land, through scattering timber and

Subdivision of T. 16 S. R. 20 East.- Continued.

- Chains dense undergrowth, ascend.
- 40.15 Set a limestone, 18x10x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 51.00 Top of ridge, 400 ft. above hollow, bears N. 20° E. and S. 20° W. descend.
- 62.00 Bottom of hollow, 140 ft. below ridge, course N. 15° E. Ascend,
- 74.00 Top of ridge, 150 ft. above hollow, bears N. 15° E. and S. 15° W.; descend.
- 80.30 The cor. of secs. 27, 28, 33 and 34.
Land, mountainous.
Soil, gravelly, 2nd and 3rd rate.
Timber, pine and cedar.
Undergrowth, sage brush.
Mountainous land or land covered with dense undergrowth, 80.30 chs.
- North $0^{\circ}0'W.$, bet. secs. 27 and 28.
Over mountainous land through dense undergrowth; descend.
- 20.00 Bottom of hollow, 80 ft. below sec. cor. course N. 10° E.
- 40.00 Set a limestone, 18x10x5 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 42.00 Top of ridge, 50 ft. above hollow, bears N. 20° E. and S. 20° W.; descend.
- 50.00 Bottom of hollow, 140 ft. below ridge, course N. W.; ascend. Enter heavy timber.
- 65.00 Top of ridge, 150 ft. above hollow, bears N. 80° W. and S. 80° E.; descend.
- 75.00 Leave timber, bears E. and W.
- 80.00 Set a limestone, 18x8x8 ins., 12 ins. in the ground, for cor. of secs. 21, 22, 27 and 28, marked with 2

Subdivision of T. 16 S. R. 20 East. - Continued.

Chains	notches on S. and 3 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable. Land, mountainous. Soil, gravelly and sandy, 2nd and 3rd rate. Timber, pine and cedar. Good grass for grazing. Undergrowth, sage brush. Mountainous or heavily timbered land or land covered with dense undergrowth, 80.00 chs. October 7, 1901: At the noon hour the sky is overcast and solar observations are impossible.
40.00	S.89° 54' E., on a random line, bet secs. 22 and 27 Set temp $\frac{1}{4}$ sec. cor.
80.24	Intersect N. and S. line 10 lks. S.of the dor. of secs 22,23,26 and 27. Thence I run
	N.89° 58' W., on a true line bet. secs. 22 and 27. Over mountainous land, through scattering undergrowth; ascend.
26.00	Top of ridge, 200 ft. above hollow, bears N.30° E. and S.30° W.; descend.
32.50	Bottom of hollow, 150 ft. below ridge, course N.10° E. Ascend.
38.50	Top of ridge, 150 ft. above hollow, bears N.20° E. and S.20° W.; descend.
40.12	Set a sandstone, 16x10x4 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
48.50	Bottom of hollow, 160 ft. below ridge course N.30° E.; ascend.
71.00	Top of ridge, 250 ft. above hollow, bears N.35° E. and S.
80.24	The cor. of secs. 21,22,27 and 28.

Subdivision of T. 16 S. R. 20 East. - Continued.

Chains	<p>Land, mountainous.</p> <p>Soil, white clay and gravelly, 2nd and 3rd rate.</p> <p>No timber.</p> <p>Undergrowth, sage and oak brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, 80.24 chs.</p>
	<p>North, $0^{\circ}02'W.$, bet. secs. 21 and 22.</p> <p>Over mountainous land through dense undergrowth; descend along side of mountain.</p>
40.00	<p>Set a sandstone, 18x12x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p>
53.00	<p>Bottom of canon, 100 ft. below sec. cor. course N. 25° E.; ascend.</p>
61.00	<p>Leave dense undergrowth, enter heavy timber, bears N.W. and S.E.</p>
80.00	<p>Set a sandstone, 16x10x5 ins. 11 ins in the ground, for cor. of secs. 15, 16, 21 and 22, marked with 16 S. on N.E., and 20 E. on S.E. faces; with 3 notches on S. and 3 notches on E. edges; from which:</p> <p>A pinion pine, 6 ins. diam. bears N. 70° E. 30 lks. dist. marked T. 16 S. R. 20 E. S. 15 B.T.</p> <p>A pinion pine, 6 ins. diam. bears S. 30° E. 60 lks. dist. marked T. 16 S. R. 20 E. S. 22 B.T.</p> <p>A pinion pine, 10 ins. diam. bears S. 75° W. 80 lks. dist. marked T. 16 S. R. 20 E. S. 21 B.T.</p> <p>A pinion pine, 8 ins. diam. bears N. 40° W. 100 lks. dist. marked T. 16 S. R. 20 E. S. 16 B.T.</p> <p>Land, mountainous.</p> <p>Soil, white clay and gravelly, 2nd and 3rd rate.</p> <p>Timber, cedar and pinion pine.</p> <p>Undergrowth, sage brush.</p> <p>Very little grass.</p> <p>Mountainous or heavily timbered land, or land covered</p>

Subdivision of T. 16 S., R. 20 East, - Continued.

Chains with dense undergrowth, 80.00 chs.

October 7, 1801: At this cor. I set off $39^{\circ}25'N.$ on the lat.arc. $5^{\circ}28'S.$ on the decl.arc; and at 4 h 00 m p.m., l.m.t.; determine a true meridian with the solar, and mark a point thereof on a stone, firmly set in the ground, 5 chs. N. of the cor.

October 7, 1801.

October, 8, 1801: At 6 h 11. m a.m., l.m.t., I observe Polaris at western elongation, in accordance with the Manual, and mark a point in the line thus determined by a tack driven in a wooden plug, set in the ground, west of the stone already set 5.00 chs. N. of the cor. At 7 h 30 m a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ}34.5'$ to the east, and mark a point in the true meridian thus determined by cutting a small groove in the stone, already set 5.00 chs. N. of the cor. This mark falls 0.30 inc. E. of the true meridian established by the Solar.

At 7 h 58 m a.m., l.m.t., I set off $39^{\circ}25'N.$ on the lat.arc; $5^{\circ}44'S.$ on the decl.arc; and mark a point in the true meridian determined with the solar, by a cross on the stone, already set 5.00 chs. N. of the cor; this mark falls 0.26 inc. E. of the true meridian established by Polaris observation.

The solar apparatus by p.m. and n.m. observations defines positions for true meridians respectively about $16''$ west and $0'14''$ East of the true meridian established by Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.

The mag. bearing of the true meridian at 8 h 0 m a.m. is $15^{\circ}50.1'$, the angle thus determined reduced by the table page 100 of the Manual, gives the mean mag. decl. $15^{\circ}47'N.$

Subdivision of T. 16 S.R. 20 East.- Continued.

Chains	I run S.89° 58' E., on a random line bet. secs. 15 and 22.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
80.00	Intersect N. and S. line at the cor. of secs. 14, 15, 22 and 23. Thence I run N.89° 58' W., on a true line bet. secs. 15 and 22. Over mountainous land, through dense undergrowth and scattering timber; ascend.
3.25	Spur of ridge, 50ft. above hollow, bears N. and S.; descend.
4.75	Bottom of hollow, 20 ft. below ridge, course N.10° E. ascend.
17.50	Top of ridge, 200 ft. above hollow, bears N.30° E. and S.30° W.; descend.
22.00	Bottom of hollow, 150 ft. below ridge, course N.E.; ascend.
40.00	Set a sandstone, 20x12x5 ins., 15 ins. in the ground for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ on N-face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
41.50	Top of ridge, 400 ft. above sec. cor. bears N.E. and S.W.; descend.
67.50	Bottom of canon, 200 ft. below ridge, course N.20° E. Enter heavy timber; ascend.
80.00	The cor. of secs. 15, 16, 21 and 22. Land, mountainous. Soil, gravelly, 2nd rate. Timber, pine and cedar. Undergrowth, sage brush. Good grass for grazing. Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.
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North 0° 0' W., bet. secs. 15 and 16.	
Over mountainous land, through heavy timber; ascend.	

Subdivision of T. 16 S. R. 20 East. - Continued.

Chains	
40.00	Set a sandstone, 18x10x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; from which A pinion pine, 20 ins. diam. bears S. 35° E. 65 lks. dist. marked $\frac{1}{4}$ S. 15 B.T.
	A pinion pine, 10 ins. diam. bears N. 60° W. 12 lks. dist. marked $\frac{1}{4}$ S. 16 B.T.
46.00	Top of ridge, 200 ft. above sec. cor. bears N. 30° E. and S. 30° W. Leave timber, enter dense undergrowth; descend.
80.00	Set a sandstone, 18x10x4 ins., 12 ins. in the ground for cor. of secs. 9, 10, 15 and 16, marked with 4 notches on S. and 3 notches on E. edges; and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, gravelly, 3rd rate.
	Timber, cedar and pinion pine.
	Undergrowth, sage brush.
	Good grass for grazing.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.
	S. 89° 58' E., on a random line, bet. secs. 10 and 15.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
80.08	Intersect N. and S. line ^{south} of the cor. of secs. 10, 11, 14 and 15.
	Thence I run
	S. 89° 59' W., on a true line, bet. secs. 10 and 15.
	Over mountainous land, through scattering timber and undergrowth; ascend.
12.50	Top of ridge, 200 ft. above sec. cor. bears N. and S.; descend.
40.04	Set a sandstone, 20x14x5 ins. 15 ins. in the ground, for $\frac{1}{2}$ sec. cor. marked $\frac{1}{4}$ on N. face; from which A pinion pine, 8 ins. diam. bears N. 65 lks. dist. marked $\frac{1}{2}$ S. 10 B.T.

Subdivision of T. 16 S.R. 20 East.- Continued.

Chains	A pinion pine, 8 ins.diam.bears S.45° E. 50 lks.dist.marked $\frac{1}{4}$ S.15 B.T.
43.90	Bottom of hollow, 200 ft. below ridge, course N.20° E. Ascend.
60.00	Top of ridge, 250 ft. above hollow, bears N and S.; descend.
80.08	The cor. of secs. 9, 10, 15 and 16. Land, mountainous. Soil, gravelly 2nd rate. Timber, pine and cedar. Undergrowth, sage brush. Good grass for grazing. Mountainous land, 80.08 chs.
	October, 8, 1901: At this cor. I set off 5°54'S.on the decl.arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°26' N.
	North, 0°02'W., bet. secs. 9 and 10. Along side of mountain sloping to west through dense undergrowth; descend gradually.
25,00	Leave undergrowth, enter heavy timber, bears E. and W.
40.00	Set a sandstone, 20x8x4 ins. 15 ins. in the ground, for $\frac{1}{4}$ sec, cor., marked $\frac{1}{2}$ on W.face; from which A pinion pine, 8 ins.diam.bears S.60° E. 55 lks.dist.marked $\frac{1}{4}$ S.10 B.T. A pinion pine, 10 ins.diam.bears N.70° W.25 lks.dist.marked $\frac{1}{4}$ S.9 B.T.
65.00	Leave heavy timber, enter dense undergrowth, bears E. and W.
80.00	Set a sandstone, 20x12x5 ins., 15 ins. in the ground, for cor. of secs. 3, 4, 9 and 10, marked with 5 notches on S. and 3 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable. Land, mountainous. Soil, gravelly, 2nd rate.

Subdivision of T. 16 S. R. 20 East.—Continued.

Chains	<p>Timber, cedar and pinion pine.</p> <p>Undergrowth, sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.</p>
	<p>N. 89° 59' E., on a random line bet. secs. 3 AND 10.</p>
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.76	<p>Intersect N. and S. line 5 lks. S. of the cor. of secs. 2, 3, 10 and 11.</p> <p>Thence I run</p> <p>S. 89° 57' W., on a true line bet. secs. 3 and 10.</p> <p>Over mountainous land through scattering timber; ascend.</p>
15.90	Top of ridge, 200 ft. above sec. cor. bears N. and S.; descend.
39.88	<p>Set a sandstone, 18x10x7 ins. 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, 1$\frac{1}{2}$ ft. high, N. of cor.</p> <p>Pits impracticable.</p>
43.00	Bottom of hollow, 200 ft. below ridge, course N. 30° E. ascend.
58.00	Top of ridge, 250 ft. above hollow, bears N. and S. Descend.
79.76	<p>The cor. of secs. 3, 4, 9 and 10.</p> <p>Land, mountainous.</p> <p>Soil, gravelly 2nd rate.</p> <p>Timber, cedar and pinion pine.</p> <p>Good grass for grazing.</p> <p>Mountainous land, 79.76 chs.</p>
	<p>North, 0° 02' W., bet. secs. 3 and 4.</p> <p>Over mountainous land, through dense undergrowth; ascend.</p>
6.00	Enter scattering timber, bears E. and W.

Subdivision of T. 16 S. R. 20 East. - Continued.

Chains	
34.00	Top of ridge, 200 ft. above sec. cor. bears E. and W.; descend.
40.00	Set a sandstone, 18x12x6 ins. 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on W. face; from which A pinion pine, 8 ins. diam. bears S. 35° E. 55 lks. dist. marked $\frac{1}{2}$ S. 3 B.T. A cedar, 4 ins. diam. bears N. 40° W. 20 lks. dist., marked $\frac{1}{2}$ S. 4 B.T.
41.00	Leave scattering timber,
73.00	Enter heavy timber.
130.40	Intersect 3rd. Standard Parallel South, 13,86 chs. East of the Standard cor. of secs. 31 and 32, Tp. 15 S.R. 20 E., which is a sandstone, 8x8x8 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. Set a sandstone, 20x10x4 ins. 10 ins. in the ground, for closing cor. of secs. 3 and 4, marked with C.C. on S., 3 grooves on E. and 3 grooves on W. faces; from which A pinion pine, 6 ins. diam. bears S. 20° E. 25 lks. dist. marked T. 16 S.R. 20 E.S. 3 B.T. A pinion pine, 8 ins. diam. bears S. 70° W. 25 lks. dist. marked T. 16 S.R. 20 E.S. 4 B.T.
	Land, mountainous.
	Soil, gravelly, 2nd rate.
	Timber, pine and cedar.
	Undergrowth, sage brush.
	Good grass for grazing.
	Mountainous or heavily timbered land or land covered with dense undergrowth, 130.40 chs.

October 8, 1901.

October 9, 1901: At 7 h 57 m a.m., I set off $39^{\circ} 23' N.$ on the lat. arc; $60^{\circ} 07' S.$ on the decl. arc; and determine a true meridian with the solar, at the cor. of secs. 4, 5, 32 and 33, on S.bdy. of Tp. heretofore described.

Subdivision of T., 16 S. R. 20 East. - Continued.

Chains	Thence I run N. $0^{\circ}0'3''$ W., bet. secs. 32 and 33. Over mountainous land, through dense undergrowth and scattering timber; descend.
33.50	Bottom of hollow, 100 ft. below sec. cor., course W. Enter heavy timber; ascend.
40.00	Set a limestone, 18x16x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which A pinion pine, 24 ins. diam. bears S. 40° E. 60 lks. dist. marked $\frac{1}{4}$ S.33 B.T. A pinion pine, 24 ins. diam. bears N. 80° W. 50 lks. dist. marked $\frac{1}{4}$ S.32 B.T.
71.00	Top of ridge, 150 ft. above hollow, bears N. 70° W. and S. 70° E. Leave heavy timber, descend.
80.00	Set a sandstone, 18x12x8 ins., 12 ins. in the ground for cor. of secs. 28, 29, 32 and 33, marked with 1 notch on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, gravelly, 2nd rate. Timber, pine and cedar. Undergrowth, sage brush. Good grass for grazing. Mountainous or heavily timbered land or land covered with dense undergrowth, 80.00 chs.
40.00	N. $89^{\circ}56' E.$, on a random line bet. secs. 28 and 33. Set temp. $\frac{1}{4}$ sec. cor.
80.12	Intersect N. and S. line at the cor. of secs. 27, 28, 33. and 34. Thence I run S. $89^{\circ}56' W.$, on a true line, bet. secs. 28 and 33. Over mountainous land, through dense undergrowth; descend.
4.36	Bottom of hollow, 30 ft. below sec. cor., course N.;

Subdivision of T. 16 S. R. 20 East.- Continued.

Chains	Ascend.
10.35	Top of ridge, 100 ft. above hollow, bears N and S.; descend.
23.50	Bottom of hollow, course N.20°E.; ascend. Note. A small spring bears N.20°E. about 20 chs. dist.
32.50	Top of ridge, 250 ft. above hollow, bears N.20°E. and S.20°W.; descend.
40.06	Set a limestone, 18x12x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
45.00	Bottom of hollow, 200 ft. below ridge, course N.20°E. Ascend.
65.00	Divide ridge, 300 ft. above hollow, bears N.10°E. and S.; descend.
80.12	The cor. of secs. 28,29,32 and 38. Land, mountainous. Soil, gravelly, 2nd rate. No timber. Undergrowth, sage brush. Very little grass. Mountainous land, or land covered with dense under-growth, 80.12 chs.
	H. 0°03'W., bet. secs. 28 and 29. Over mountainous land, through dense undergrowth and scattering timber; descend.
40.00	Set a sandstone, 14x12x5 ins. 9 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W.face; from which A pinion pine, 8 ins. diam. bears N.30°E. 25 lks. dist. marked $\frac{1}{2}$ S.28 B.T. A pinion pine, 6 ins. diam. bears S.70°W. 20 lks. dist. marked $\frac{1}{2}$ S.29 B.T.
44.00	Bottom of hollow, 100 ft. below sec. cor. course S. 60°W.
65.00	Leave timber, bears N. and S.

Subdivision of T. 16 S. R. 20 East. - Continued.

Chains	
67.50	Top of ridge, 250 ft. above hollow, bears N.E. and S.W. Descend.
80.00	Set a sandstone, 16x10x5 ins., 11 ins. in the ground for cor. of secs. 20, 21, 28 and 29; marked with 2 notches on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, gravelly, 2nd rate.
	Timber, cedar and pinion pine,
	Undergrowth, sage and oak brush.
	Good grass for grazing.
	Mountainous land or land covered with dense undergrowth, 80.00 chs.
	October 9, 1901. At this cor. I set off 6° 12'S., on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39° 24'N.
	N. 89° 56'E., on a random line bet. secs. 21 and 28.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.82	Intersect N. and S. line, 14 lks. N. of the cor. of secs. 21, 22, 27 and 28.
	Thence I run
	N. 89° 58'W. on a true line, bet. secs. 21 and 28.
	Over mountainous land, through dense undergrowth; descend.
12.00	Bottom of canon, 100 ft. below sec. cor., course N. 10° W.; ascend.
52.50	Top of ridge, 250 ft. above canon, bears N. 35° E. and S. 35° W.; descend.
39.9E	Set a sandstone, 14x10x6 ins., 9 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Pits impracticable.

Subdivision of T. 16 S. R. 20 East.- Continued.

Chains	
40.20	Bottom of hollow, 150 ft. below ridge, course N.15° E
59.80	Top of ridge, 180 ft. above hollow, bears N.30° E. and S.30° W.; descend.
79.82	The cor. of secs. 20, 21, 28 and 29. Land, mountainous. Soil, gravelly, 2nd rate. No timber. Undergrowth, sage and deer brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.82 chs.
	N.0°03'W. bet. secs. 20 and 21. Over mountainous land through dense undergrowth; descend gradually.
15.00	Bottom of hollow, 50 ft. below sec. cor. course N.20° E.; ascend.
40.00	Set a limestone, 24x12x6 ins., 18 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
57.00	Top of ridge, 200 ft. above hollow, bears N.30° E. and S.30° W.; descend. Enter heavy timber.
69.85	Bottom of hollow, 100 ft. below ridge, course S.80° W. Ascend.
80.00	Set a sandstone, 18x8x6 ins., 12 ins. in the ground, for cor. of secs. 16, 17, 20 and 21, marked with 3 notches on S. and 4 notches on E. edges; from which A pinion pine, 5 ins. diam. bears N.45° E. 45 lks. dist. marked T.16 S.R.20 E.S.16 B.T. A pinion pine, 8 ins. diam. bears S.40 °E. 80 lks. dist. marked T.16 S.R.20 E.S.21 B.T. A pinion pine, 4 ins. diam. bears S.20° W. 60 lks. dist. marked T.16 S.R.20 E.S.20 B.T. A pinion pine, 4 ins. diam. bears N.36° W. 40

Subdivision of T. 16 S.R. 20 East.- Continued.

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| Chains | lks.dist.marked T.16 S.R.20 E.S.17 B.E. |
| | Land. mountainous. |
| | Soil, gravelly and rocky, 2nd rate. |
| | Timber, cedar and pinion pine. |
| | Undergrowth, sage brush. |
| | Good grass for grazing. |
| | Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs. |
| | |
| | S.89° 58' E., on a random line, bet. secs. 16 and 21. |
| 40.00 | Set temp. $\frac{1}{4}$ sec. cor. |
| 79.70 | Intersect N.and S. line at the cor. of secs. 15, 16, 21 and 22. |
| | Thence I run |
| | N.89° 58' W., on a true line, bet. secs. 16 and 21. |
| | Over mountainous land through heavy timber ; ascend. |
| 15.00 | Top of ridge, 250 ft. above sec. cor.bears N.10° E. and S.10° W. Leave heavy timber, enter dense undergrowth; descend.. |
| 36.50 | Bottom of hollow, 250 ft. below ridge, course N.; ascend. |
| 39.85 | Set a sandstone, 18x12x4 ins. 12-ins. in the ground, for $\frac{1}{4}$ sec. cor.marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable. |
| 46.50 | Top of ridge, 50 ft. above hollow, bears N.and S.; descend. |
| 55.00 | Bottom of hollow, 100 ft. below ridge, "course N. 25° E. Ascend. |
| 65.50 | Top of ridge, 200 ft. above hollow, bears N.25° E. and S.25° W.; descend. |
| 79.70 | The cor. of secs. 16, 17, 20 and 21.
Land, mountainous.
Soil, gravelly, 3rd rate.
Timber, cedar and pinion pine.
Undergrowth, sage and deer brush. |

Subdivision of T.16 S., R.20 E.-Continued.

Chains	Good grass for grazing. Mountainous land or heavily timbered land, or land covered with dense undergrowth, 79.70 chs. October 9, 1901.
	October 10, 1901: At 8 h 0 m a.m., l.m.t., I set off 39° 25' N., on the lat.arc; 6° 30' S., on the decl.arc; and determine a true meridian with the solar at the cor. of secs. 16, 17, 20, and 21. Thence I run N. 0° 03' W., bet. secs. 16 and 17. Over mountainous land; through scattering timber and scattering undergrowth; ascend .
9.00	Top of ridge, 150 ft. above sec.cor., bears E. and W.; descend .
30.25	Bottom of hollow, 100 ft. below ridge, course N.E.; ascend .
40.00	Top of ridge, 200 ft. above hollow, bears N. 40° E. and S. 40° W.; descend . Set a limestone, 20x10x5 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Descend .
70.25	Bottom of hollow, 200 ft. below ridge, course N. 30° E.; ascend .
80.00	Set a limestone, 26x15x4 ins., 19 ins. in the ground, for cor. of secs. 8, 9, 16, and 17, marked with 4 notches on S. and 4 notches on E. edges; from which A pinion pine, 10 ins. diam. bears N. 20° W., 150 lks. dist., marked T.16 S., R.20 E., S.8, B.T. No other trees within limits; raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous . Soil, sandy and clay loam; 3rd rate. Timber, cedar and pinion pine.

Subdivision of T.16 S., R.20 E.-Continued.

Chains	Undergrowth, sage brush. Good grass for grazing. Mountainous land, 80.00 chs.
	S.89° 58' E., on a random line bet. secs. 9 and 16.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.80	Intersect N. and S. line, 7 lks. S. of the cor. of secs. 9, 10, 15, and 16. Thence I run S.89° 58' W., on a true line bet. secs. 9 and 16. Over mountainous land; through scattering timber and scattering undergrowth; descend gradually.
39.90	Set a sandstone, 18x10x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which A pinion pine, 7 ins. diam., bears N.65° E., 100 lks. dist., marked $\frac{1}{4}$ S.9, B.T. A pinion pine, 5 ins. diam., bears S.87° E., 80 lks. dist., marked $\frac{1}{4}$ S.16, B.T.
52.25	Bottom of Road Canon, 300 ft. below sec. cor., course N.E.; ascend.
62.00	Top of ridge, 200 ft. above canon, bears N. and S.; descend.
77.00	Bottom of hollow, 150 ft. below ridge, course N.; ascend.
79.80	The cor. of secs. 8, 9, 16, and 17. Land, mountainous. Soil, sandy and clay; 3rd rate. Timber, pine and cedar. Undergrowth, sage brush. Good grass for grazing. Mountainous land; 79.80 chs.
	N.0° 03' W., bet. secs. 8 and 9. Over mountainous land; through scattering undergrowth

Subdivision of T.16 S., R.20 E.-Continued.

	Chains and scattering timber; ascend .
31.00	Top of ridge, 200 ft. above sec.cor., bears N.34° E. and S.34° W.; descend .
40.00	Set a sandstone, 16x12x4 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; from which A pinion pine, 7 ins.diam., bears N.78° E., 130 lks.dist., marked $\frac{1}{4}$.S.9,B.T. A pinion pine, 9 ins.diam., bears S.70° W., 180 lks.dist., marked $\frac{1}{4}$ S.8,B.T.
70.00	Bottom of hollow, 200 ft. below ridge, course N.10° E.; ascend .
80.00	Set a sandstone, 18x16x5 ins., 12 ins. in the ground, for cor.of secs.4,5,8, and 9, marked with 5 notches on S. and 4 notches on E.edges; from which A cedar, 5 ins.diam., bears N.35° E., 275 lks. dist., marked T.16 S., R.20 E., S.4, B.T. A cedar, 7 ins.diam., bears S.79° E., 170 lks. dist., marked T.16 S., R.20 E., S.9, B.T. A cedar, 6 ins.diam., bears S.40° W., 175 lks. dist., marked T.16 S., R.20 E., S.8, B.T. A cedar, 7 ins.diam., bears N.84° W., 240 lks. dist., marked T.16 S., R.20 E., S.5, B.T. Land, mountainous. Soil, sandy and gravelly loam; 2nd rate. Timber, pinion pine and cedar. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, 80.00 chs. October 10, 1901: At the noon hour the sky is overcast and solar observations are impossible.
40.00	N.89° 59' E., on a random line betsecs.4 and 9. Set temp. $\frac{1}{4}$ sec.cor.
79.82	Intersect N. and S.line,, 5 lks.S. of the cor.of secs. 3,4,9, and 10.

Subdivision of T. 16 S., R. 20 E.-Continued.

Chains	<p>Thence I run $S.89^{\circ}57'W.$, on a true line bet. secs. 4 and 9. Over mountainous land; through dense undergrowth; descend .</p>
10.00	Enter heavy timber, bears N. and S.
39.91	<p>Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N. face; from which A pinion pine, 9 ins. diam., bears N. $35^{\circ}E.$, 80 lks. dist., marked $\frac{1}{2}$ S.4, B.T. A pinion pine, 6 ins. diam., bears S. $30^{\circ}E.$, 70 lks. dist., marked $\frac{1}{2}$ S.9, B.T.</p>
42.50	Bottom of Road Canon, 350 ft. below sec.cor., course N. $30^{\circ}E.$; ascend .
65.00	Top of ridge, 300 ft. above canon, bears N. $20^{\circ}E.$ and S. $20^{\circ}W.$; descend .
78.90	Bottom of hollow, 250 ft. below ridge, course N.W.; as- cend .
79.82	<p>The cor.of secs. 4,5,8, and 9. Land, mountainous . Soil, sandy and clay loam and gravelly; 2nd and 3rd rate. Timber, pinion pine and cedar. Undergrowth, oak and sage brush . Good grass . Mountainous or heavily timbered land, or land covered with dense undergrowth, 79.82 chs .</p>
	<p>N. $0^{\circ}03'W.$, on a true line bet. secs. 4 and 5. Over mountainous land; through heavy timber and scat- tering undergrowth; descend .</p>
2.00	Bottom of hollow, 25 ft. below sec.cor., course N.W.; as- cend . Leave timber.
32.00	Top of ascent, 200 ft. above hollow, bears N.W. and S.E.; thence over rolling mesa. Enter dense undergrowth.
40.00	Set a sandstone, 24x10x4 ins., 18 ins. in the ground, for

Subdivision of T. 16 S., R. 20 E., - Continued.

Chains $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; dig pits, 18x18x12 ins., N. and S. of stone, 3 ft. dist; and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

78.40 Leave mesa, bears E. and W.; descend.

90.00 Bottom of hollow, 150 ft. below mesa, course W.; ascend.

95.00 Top of ascent, 150 ft. above hollow, bears E. and W.; thence over rolling mesa.

115.00 Leave mesa, bears N.E. and S.W.; descend.

121.00 Bottom of hollow, 150 ft. below mesa, course S. 80° W.; ascend.

130.18 Intersect the Third Standard Parallel South, 14.20 chs. East of the standard cor. of Tps. 15 S., Rs. 19 and 20 E. which is a limestone, 14x8x8 ins., above ground, firmly set and marked and witnessed as described by the surveyor general.

Set a sandstone, 24x10x5 ins., 18 ins. in the ground, for closing cor. of secs. 4 and 5, marked C.C. on S., with 4 grooves on E. and 2 grooves on W. faces; from which

A red pine, 18 ins. diam., bears S. 80° E., 30 lks. dist., marked T. 16 S., R. 20 E., S. 4, B.T.

A red pine, 10 ins. diam., bears S. 20° W., 69 lks. dist., marked T. 16 S., R. 20 E., S. 5, B.T.

Land, mountainous and rolling mesa.

Soil, sandy and gravelly loam and rocky; 2nd and 4th rate.

Timber, cedar and pinion pine.

Undergrowth, sage brush.

Good grass for grazing.

Mountainous or heavily timbered land, or land covered with dense undergrowth, 130.18 chs.

October 10, 1901.

October 11, 1901: At 8 h 0 m a.m., l.m.t., I set off 39° 23' N., on the lat.arc; 6° 53'S., on the decl.arc; and determine a true meridian with the solar at the cor.of secs. 5, 6, 31, and 32, on S.bdy. of Tp., heretofore des-

40.

Subdivision of T.16 S., R.20 E.-Continued.

Chains	scribed. Thence I run N.0° 03'W., bet. secs. 31 and 32. Over mountainous land; through heavy timber; ascend over ledges. 7.00 Leave ledges, bears N.W. and S.E. 20.00 Leave timber, bears E. and W. 30.00 Top of ridge, 300 ft. above sec. cor., bears N.20°W. and S.20°E.; descend. 40.00 Set a sandstone, 20x10x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. 80.00 Set a sandstone, 20x12x6 ins., 15 ins. in the ground, for cor. of secs. 29, 30, 31, and 32, marked with 1 notch on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy loam and rocky; 2nd and 4th rate. Timber, cedar, pine and aspen. Good grass for grazing. Mountainous or heavily timbered land, 80.00 chs.
	N.89° 56'E., on a random line bet. secs. 29 and 32.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.10	Intersect N. and S. line, at the cor. of secs. 28, 29, 32, and 33. Thence I run S.89° 56'W., on a true line bet. secs. 29 and 32. Over mountainous land; through scattering undergrowth; descend gradually along north slope of ridge.
40.05	Set a sandstone, 18x12x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which A pinion pine, 5 ins. diam., bears N.50°W., 25 lks. dist., marked $\frac{1}{4}$ S. 29, B.T.

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Subdivision of T. 16 S., R. 20 E. -Continued.

Chains	A pinion pine, 18 ins. diam., bears S. 10° E., 10 lks. dist. marked $\frac{1}{4}$ S. 32, B.T.
58.70	^{Creek} Creek, 3 lks. wide, 2 ins. deep, in bottom of canon, 300 ft. below sec.cor. and 50 ft. below $\frac{1}{4}$ sec.cor., course N.W.; ascend.
80.10	The cor.of secs.29,30,31, and 32. Land, mountainous. Soil, sandy and gravelly;3rd rate. Timber,a'few scattering cedars and pinion pines near the $\frac{1}{4}$ sec.cor. Undergrowth,sage brush. Good grass for grazing. Mountainous land,80.10 chs.
	S. 89° 56' W., on a random line betsecs.30 and 31.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
79.48	Intersect W.bdy.of Tp.,2 lks.S.of the cor.of secs. 25,30,31, and 36, heretofore described. Thence I run N. 89° 57' E., on a true line betsecs.30 and 31. Over bottom of Hill Creek Canon;through dense under growth of greasewood.
8.00	Leave canon bottom,bears N.10° E.and S.10° W.;ascend through scattering timber . Leave greasewood and enter dense sage brush.
39.48	Set a sandstone,20x15x4 ins.,15 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on N.face;from which A cedar,10 ins.diam.,bears N.35° E.,65 lks. dist.,marked $\frac{1}{4}$ S.30,B.T. A pine ,8 ins.diam.,bears S.5° E.,5 lks. dist.,marked $\frac{1}{4}$ S.31,B.T.
67.50	Top of ridge,400 ft.above canon,bears N.20° W.and S.20° E.;leave timber,bears with ridge.Descend.
79.48	The cor.of secs.29,30,31, and 32. Land, mountainous and canon bottom.

Subdivision of T.16 S., R.20 E. -Continued.

Chains	<p>Soil, sandy loam and rocky; 2nd and 4th rate.</p> <p>Timber, cedar and pinion pine.</p> <p>Undergrowth, sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 79.48 chs.</p> <p>October 11, 1901: At this cor. I set off $6^{\circ} 58' S.$, on the decl. arc; and at 0 h 3 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ} 23' N.$</p> <hr/>
	<p>N. $0^{\circ} 03' W.$, bet. secs. 29 and 30.</p> <p>Over mountainous land; through dense undergrowth; descend gradually along east slope of ridge.</p>
40.00	<p>Set a sandstone, $20 \times 10 \times 5$ ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p>
80.00	<p>Set a sandstone, $20 \times 12 \times 4$ ins., 15 ins. in the ground, for cor. of secs. 19, 20, 29, and 30, marked with 2 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p> <p>Land, mountainous.</p> <p>Soil, sandy loam; 2nd rate.</p> <p>No timber.</p> <p>Undergrowth, sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.00 chs.</p> <hr/>
	<p>N. $89^{\circ} 56' E.$, on a random line bet. secs. 20 and 29.</p>
40.00	<p>Set temp. $\frac{1}{4}$ sec. cor.</p>
79.96	<p>Intersect N. and S. line, 2 lks. S. of the cor. of secs. 20, 21, 28, and 29.</p>
	<p>Thence I run</p>

Subdivision of T. 16 S., R. 20 E. -Continued.

Chains	S.89° 55' W., on a true line bet. secs. 20 and 29 . Over mountainous land; through scattering sage brush; descend .
6.50	Bottom of hollow, 100 ft. below sec. cor., course N.15° E. Ascend .
13.00	Top of ridge, 125 ft. above hollow, bears N.20° W. and S. 20° E.; descend .
24.00	Bottom of hollow, 150 ft. below ridge, course S.50° W.; enter scattering timber, bears with hollow. Ascend .
39.98	Set a sandstone, 20x12x6 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which A pinion pine, 36 ins. diam., bears N.45° E., 70 lks. dist., marked $\frac{1}{4}$ S.20, B.T. A pinion pine, 24 ins. diam., bears S., 2 lks. dist., marked $\frac{1}{2}$ S.29, B.T.
44.00	Top of ridge, 200 ft. above hollow and 50. ft. above $\frac{1}{4}$ sec. cor., bears N.E. and S.W.; descend .
67.50	^{corrall} Creek, 3 lks. wide, 4 ins. deep, in bottom of canon, 350 ft. below ridge, course N20° W.; leave timber, bears with canon. Ascend .
79.96	The cor. of secs. 19, 20, 29, and 30. Land, mountainous. Soil, sandy loam and gravelly; 2nd and 3rd rate. Timber, pinion pine and cedar. Undergrowth, sage brush. Good grass for grazing. Mountainous land, 79.96 chs.
40.00	S.89° 57' W., on a random line bet. secs. 19 and 30. Set temp. $\frac{1}{4}$ sec. cor.
79.64	Intersect W. bdy. of Tp., 2 lks. N. of the cor. of secs. 19, 24, 25, and 30, heretofore described. Thence I run N.89° 56' E., on a true line bet. secs. 19 and 30. Over mountainous land; through dense undergrowth and scattering timber; descend .

Subdivision of T. 16 S., R. 20 E.-Continued.

- chains.
- 6.50 Feet of descent, 50 ft. below sec. cor., bears N. and S. I enter bottom of Hill Creek Canon.
- 9.50 Hill Creek, 10 lks. wide, 5 ins. deep, rapid current, gravelly bottom, course N.
- 16.25 Leave canon bottom, bears N. and S.; ascend mountain.
- 30.54 Set a sandstone, 11 $\frac{1}{2}$ " ins., 12 ins. in the ground, for sec. cor., marked \pm on N. face; from which A pine, 6 ins. diam., bears N. 45° E., .65 lks. dist., marked \pm S. 30, S.T.
- A pine, 6 ins. diam., bears S. 80° E., .83 lks. dist., marked \pm S. 30, S.T.
- 53.00 Top of ridge, 400 ft. above canon, bears N. and S.; leave timber, bears with ridge, Descend.
- 69.50 Bottom of hollow, 200 ft. below ridge, course N.; ascend.
- 72.70 Top of ridge, 150 ft. above hollow, bears N. and S.; descend.
- 79.04 The cor. of secn. 19, 20, 29, and 30.
- Land, mountainous and level canon bottom.
- Soil, sandy and gravelly; 3rd rate.
- Timber, pine and cedar.
- Undergrowth, oak, sage and greasewood.
- Good grass for grazing.
- Mountainous land, or land covered with dense undergrowth, 79.04 cha.

October 11, 1901.

October 12, 1901: At 8 h 0 m a.m., 1.m.t., I set off 39° 24' Y., on the 1st. arc; 7° 15' S., on the decl. arc; and determined a true meridian, with the solar, at the cor. of secn. 19, 20, 29, and 30.

Thence I ran

3.0° 03' Y., bet. secn. 10 and 20,

over mountainous land; through dense undergrowth; des-

cend.

Subdivision of T.16 S., R.20 E.-Continued.

Chains	
33.00	Creek, ^{Corral} 4 lks.wide, 3 ins.deep,in canon,600 ft.below sec.cor.,course N.80°W.;ascend .
36.00	Enter scattering timber,bears E.and W.
40.00	Set a sandstone,16x10x4 ins.,11 ins.in the ground,for $\frac{1}{2}$ sec.cor.,marked $\frac{1}{4}$ on W.face;from which A cedar,11 ins.diam.,bears S.85°E.,100 lks. dist.,marked $\frac{1}{4}$ S.20,B.T. A cedar,10 ins.diam.,bears S.80°W.,25 lks. dist.,marked $\frac{1}{4}$ S.19,B.T.
41.00	Top of ridge,600 ft.above canon,bears N.80°W.and S.80°E.;leave timber,bears with ridge .Descend .
55.75	Bottom of hollow,300 ft.below ridge,course N.85°W.;enter scattering timber,bears with hollow, Ascend .
65.00	Top of ridge,200 ft.above hollow,bears E.and W.;descend .
80.00	Set a sandstone,18x12x8 ins.,12 ins.in the ground,for cor.of secs.17,18,19, and 20,marked with 3 notches on S.and 5 notches on E.edges;from which A cedar,10 ins.diam.,bears N.65°E.,250 lks. dist.,marked T.16 S.,R.20 E.,S.17,B.T. A cedar,8 ins.diam.,bears S.60°E.,200 lks. dist.,marked T.16 S.,R.20 E.,S.20,B.T. A cedar,6 ins.diam.,bears S.20°W.,100 lks. dist.,marked T.16 S.,R.20 E.,S.19,B.T. A cedar,6 ins.diam.,bears N.45°W.,100 lks. dist.,marked T.16 S.,R.20 E.,S.18,B.T.
	Land,mountainous.
	Soil,sandy and gravelly;3rd rate.
	Timber,cedar and pinion pine.
	Undergrowth,sage brush.
	Good grass for grazing.
	Mountainous land,or land covered with dense under-growth,80.00 chs.

Subdivision of T.16 S., R.20 E.-Continued.

Chains	N. $89^{\circ} 55' E.$, on a random line bet. secs. 17 and 20.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
79.90	Intersect N. and S. line, 12 lks.N. of the cor. of secs. 16, 17, 20, and 21. Thence I run West, on a true line bet. secs. 17 and 20. Over mountainous land; through heavy timber; descend.
23.25	Bottom of hollow, 150 ft. below sec.cor., course S. $20^{\circ} W.$. Ascend.
39.95	Set a sandstone, 18x6x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N. face; from which A pinion pine, 12 ins. diam., bears N. $30^{\circ} E.$, 65 lks.dist., marked $\frac{1}{4}$ S.17, B.T. A pinion pine, 12 ins. diam., bears S. $10^{\circ} E.$, 30 lks.dist., marked $\frac{1}{4}$ S.20, B.T.
40.50	Top of ridge, 10 ft. above $\frac{1}{4}$ sec.cor., and 150 ft. above hollow, bears N. $10^{\circ} E.$ and S. $10^{\circ} W.$; descend.
62.40	Bottom of hollow, 75 ft. below ridge, course S. $10^{\circ} W.$; ascend.
72.50	Top of ridge, 100 ft. above hollow, bears N. $10^{\circ} E.$ and S. $10^{\circ} W.$; descend.
79.90	The cor. of secs. 17, 18, 19, and 20. Land, mountainous. Soil, sandy and gravelly; 3rd rate. Timber, pinion pine and cedar. Good grass for grazing. Mountainous or heavily timbered land, 79.90 chs.

	S. $89^{\circ} 56' W.$, on a random line bet. secs. 18 and 19.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
79.44	Intersect W.bdy. of Tp., at the cor. of secs. 13, 18, 19, and 24, heretofore described. Thence I run N. $89^{\circ} 56' E.$, on a true line bet. secs. 18 and 19. Over mountainous land; through scattering timber and scattering undergrowth; descend.

Subdivision of T. 16 S., R. 20 E. -Continued.

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Chains	
10.00	Foot of descent, 100 ft. below sec. cor., bears N. and S.; enter bottom of Hill Creek Canon. Enter dense greasewood.
14.00	Hill Creek, 10 lks. wide, 6 ins. deep, rapid current, gravelly bottom, course N.
17.00	Leave canon, bottom, bears N. 10° E. and S.; leave greasewood. Begin abrupt ascent.
27.50	Top of ridge, 200 ft. above canon, bears N. 30° W. and S. 30° E.; descend.
36.50	Bottom of hollow, 150 ft. below ridge, course N. 10° W.; ascend.
39.44	Set a sandstone, 16x10x6 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which <ul style="list-style-type: none"> . A pinion pine, 12 ins. diam., bears N. 9° E., 70 lks. dist., marked $\frac{1}{4}$ S. 17, B.T. . A cedar, 8 ins. diam., bears S. 47° E., 50 lks. dist., marked $\frac{1}{4}$ S. 18, B.T.
53.50	Top of ridge, 250 ft. above hollow, bears N. 10° W. and S. 10° E.; descend.
68.00	Bottom of hollow, 175 ft. below ridge, course N.; ascend.
79.44	The cor. of secs. 17, 18, 19, and 20. <p>Land, mountainous.</p> <p>Soil, sandy and gravelly and rocky; 3rd and 4th rate.</p> <p>Timber, pinion pine and cedar.</p> <p>Undergrowth, sage brush and greasewood.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense under-growth, 79.44 chs.</p> <p>October 12, 1901: At this cor. I set off 7° 20' S., on the decl. arc; and at 0 h 3 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39° 25' N.</p>

N. 0° 03' W., bet. secs. 17 and 18.

Over mountainous land; through scattering timber and scattering undergrowth; ascend.

Subdivision of T.16 S., R.20 E.-Continued.

Chains

- 20.00 Top of ridge, 100 ft. above sec.cor., bears E. and W.; descend .
- 40.00 Set a limestone, 24x12x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; from which
- A pinion pine, 5 ins. diam., bears S.50° E., 68 lks. dist., marked $\frac{1}{4}$ S.17, B.T.
- A pinion pine, 4 ins. diam., bears W., 15 lks. dist., marked $\frac{1}{4}$ S.18, B.T.
- 68.50 Bottom of hollow, 300 ft. below ridge, course N.W.; ascend .
- 80.00 Set a limestone, 20x11x4 ins., 15 ins. in the ground, for cor. of secs. 7, 8, 17, and 18, marked with 4 notches on S. and 5 notches on E.edges; from which
- A pine, 9 ins. diam., bears N.57° E., 48 lks. dist., marked T.16 S., R.20 E., S.8, B.T.
- A pinion pine, 10 ins. diam., bears S.50° E., 60 lks. dist., marked T.16 S., R.20 E., S.17, B.T.
- A cedar, 10 ins. diam., bears S.57° W., 70 lks. dist., marked T.16 S., R.20 E., S.18, B.T.
- A pinion pine, 9 ins. diam., bears N.54° W., 70 lks. dist., marked T.16 S., R.20 E., S.7, B.T.
- Land, mountainous.
- Soil, gravelly and clay; 3rd rate.
- Timber, cedar and pinion pine.
- Undergrowth, oak and sage brush, mostly sage.
- Good grass for grazing..
- Mountainous land, 80.00 chs.

East, on a random line bet. secs. 8 and 17.

40.00 Set temp. \pm sec.cor.

80.00 Intersect N. and S.line, at the cor. of secs. 8, 9, 16, and 17.

Thence I run

✓

West, on a true line bet. secs. 8 and 17.

47.

Subdivision of T.16 S., R.20 E.-Continued.

Chains over mountainous land; through scattering undergrowth and scattering timber; ascend.

20.00 Top of ridge, 200 ft. above sec.cor., bears N.20°E. and S.20°W.; descend.

40.00 Set a limestone, 18x12x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

42.00 Bottom of hollow, 250 ft. below ridge, course N.; ascend.

51.75 Top of ridge, 100 ft. above hollow, bears N.20°W. and S.20°E.; descend through heavy timber, bears with ridge.

80.00 The cor. of secs. 7, 8, 17, and 18.

Land, mountainous.

Soil, sandy and gravelly; 3rd rate.

Timber, cedar and pinon pine.

Undergrowth, sage brush.

Good grass for grazing.

Mountainous or heavily timbered land, 80.00 chs.

S.89° 56'W., on a random line bet. secs. 7 and 18.

40.00 Set temp... $\frac{1}{2}$ sec.cor.

79.30 Intersect W.bdy. of Tp., 7 lks. S. of the cor. of secs. 7, 12, 13, and 18, heretofore described.

Thence I run

N.89° 59'E., on a true line bet. secs. 7 and 18.

Over mountainous land; through scattering timber; descend abruptly.

1.00 Foot of descent, 25 ft. below sec.cor., bears N. and S.

Enter bottom of Hill Creek Canon. Enter dense greasewood.

1.25 Hill Creek, 10 lks. wide, 6 ins. deep, rapid current, sandy bottom, course N.10°E. about 5.00 chs. thence N.E.

6.50 Leave canon bottom, bears N.E. and S.E. Leave greasewood and enter dense sage brush. Ascend abruptly over broken ground.

25.00 Top of ridge, 300 ft. above canon, bears N.5°E. and S.

Subdivision of T.16 S., R.20 E.-Continued.

Chains	25° E.; descend .
39.30	Set a sandstone, 20x12x5 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; from which A cedar, 4 ins. diam., bears N.50° W., 70 lks. dist., marked $\frac{1}{4}$ S.7,B.T. A cedar, 4 ins. diam., bears S.30° E., 12 lks. dist., marked $\frac{1}{4}$ S.18,B.T.
63.50	Bottom of hollow, 200 ft. below ridge, course N.W.; as- cend .
79.30	The cor.of secs.7,8,17, and 18. Land, mountainous and canon bottom. Soil, sandy and clay loam and rocky; 2nd and 4th rate. Timber, cedar and pinion pine. Undergrowth, sage brush and greasewood. Good grass for grazing. Mountainous land; or land covered with dense under- growth, 79.30 chs.

October 12, 1901.

	October 14, 1901: At 8 h 2 m a.m., l.m.t., I set off 39° 26' N., on the lat.arc; 8° 0' S., on the decl.arc; and de- termine a true meridian, with the solar at the cor. of secs.7,8,17, and 18 . Thence I run N.0° 03' W., bet.secs.7 and 8. Over mountainous land; through scattering timber ; as- cend gradually over broken ground sloping to the west. 40.00 Set a sandstone, 18x12x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; from which A cedar, 30 ins. diam., bears N.35° E., 25 lks. dist., marked $\frac{1}{4}$ S.8,B.T. A pinion pine, 10 ins. diam., bears S.45° W., 25 lks.dist., marked $\frac{1}{4}$ S.7,B.T. 74.50 Top of ridge, 150 ft. above $\frac{1}{4}$ sec.cor., bears N.30° W. and S.30° E.; descend .
--	--

Subdivision of T.16 S., R.20 E. - Continued.

Chains

80.00 Set a limestone, 16x9x4 ins., 12 ins. in the ground, for cor. of secs. 5, 6, 7, and 8, marked with 5 notches on S. and 5 notches on E. edges; from which

A red pine, 5 ins. diam., bears N. 43° E., 40 lks. dist., marked T.16 S., R.20 E., S.5, B.T.

A red pine, 6 ins. diam., bears S. 56° E., 65 lks. dist., marked T.16 S., R.20 E., S.8, B.T.

A red pine, 6 ins. diam., bears S. 71° W., 75 lks. dist., marked T.16 S., R.20 E., S.7, B.T.

A red pine, 10 ins. diam., bears N. 14° W., 60 lks. dist., marked T.16 S., R.20 E., S.6, B.T.

Land, mountainous.

Soil, clay and gravelly loam and rocky; 2nd and 4th rate.

Timber, cedar and pinion pine.

Good grass for grazing.

Mountainous land; 80.00 chs.

East, on a random line bet. secs. 5 and 8.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.70 Intersect N. and S. line, 10 lks. S. of the cor. of secs. 4, 5, 8, and 9.

Thence I run

S. 89° 56' W., on a true line bet. secs. 5 and 8.

Over mountainous land; through scattering timber and scattering undergrowth; ascend.

21.00 Top of ridge, 200 ft. above sec. cor., bears N. 10° W. and S. 10° E.; descend over broken ground.

39.65 Set a sandstone, 14x10x6 ins., 9 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which

A pinion pine, 15 ins. diam., bears N. 55° E., 40 lks. dist., marked $\frac{1}{4}$ S.5, B.T.

A pinion pine, 10 ins. diam., bears S. 40° W., 65 lks. dist., marked $\frac{1}{4}$ S.8, B.T.

72.00 Bottom of hollow, 400 ft. below ridge, course N.W.; as-

Subdivision of T.16 S., R.20 E./-Continued.

- | | |
|--------|---|
| | Chainscend . |
| 79.70 | The cor.of secs.5,6,7, and 8.
Land, mountainous.
Soil, sandy and gravelly and rocky; 3rd and 4th rate.
Timber, cedar and pinion pine.
Good grass for grazing.
Mountainous land, 79.70 chs. |
| | S. 89° 59' W., on a random line bet.secs.6 and 7. |
| 40.00 | Set temp. $\frac{1}{4}$ sec.cor. |
| 79.06 | Intersect W.bdy.of Tp., at the cor.of secs.1,6,7, and 12, heretofore described.
Thence I run
N. 89° 59' E., on a true line bet.secs.6 and 7.
Over mountainous land; through scattering timber and scattering undergrowth; descend over rough broken ground . |
| 39.06 | Set a sandstone, 18x9x7 ins., 12 ins.in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft.high, N.of cor.Pits impracticable. |
| 54.00 | Foot of descent, bears N.20° E. and S.20° W., 600 ft.below sec.cor., and 200 ft.below $\frac{1}{4}$ sec.cor.; enter bottom of Hill Creek Canon.Enter dense greasewood . |
| 56.00 | Hill Creek, 10 lks.wide, 10 ins.deep, moderate current, sandy bottom, course N.20° E. |
| 60.00 | Leave canon bottom, bears N.20° E. and S.20° W. Leave greasewood .Ascend abruptly over rough broken ground. |
| ,76.00 | Top of ridge, 350 ft.above canon, bears N.30° W. and S. 30° E.;descend. |
| 79.06 | The cor.of secs.5,6,7, and 8.
Land, mountainous.
Soil, gravelly and rocky; 3rd and 4th rate.
Timber, cedar and pinion pine.
Undergrowth, oak and sage brush; and greasewood.
Good grass for grazing. |

Subdivision of T.16 S., R.20 E.-Continued.

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	Chains	Mountainous land, or land covered with dense under-growth, 79.06 chs.
		October 14, 1901: At the noon hour the sky is overcast and solar observations are impossible.
		N. $0^{\circ}03'W.$, on a true line bet. secs. 5 and 6.
		Over mountainous land; through scattering timber and scattering undergrowth; descend .
7.50		Bottom of hollow, 150 ft. below sec.cor., course N. $60^{\circ}W.$; thence along side of mountain sloping to the west; ascend gradually.
21.00		Top of ridge, 200 ft. above hollow, bears E. and W.; descend .
28.00		Foot of descent, 200 ft. below ridge, bears N.E. and S.W. Enter dense greasewood. Thence across bottom of Hill Creek Canon :
33.10		Hill Creek, 10 lks. wide, 6 ins. deep, sandy bottom, moderate current, course N.E.
38.00		Leave canon, bears N.E. and S.W. Leave greasewood . Ascend .
40.00		Set a sandstone, 16x8x5 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
71.00		Top of ridge, 600 ft. above canon, bears N. $55^{\circ}W.$ and S. $55^{\circ}E.$; descend .
86.50		Bottom of hollow, 300 ft. below ridge, course S. $70^{\circ}E.$; ascend .
105.00		Top of ascent, 400 ft. above hollow, bears N.E. and S.W. Thence over rolling mesa. Enter heavy timber ..
129.90		Intersect the Third Standard Parallel South, 14.50 chs. East of the standard cor. of secs. 35 and 36 on S.bdy. of Tp. 15 S., R. 19 E., which is a limestone, 12 x10x6 ins., above ground, firmly set, and marked and witnessed as described by the surveyor general.

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Subdivision of T.16 S., R.20 E.-Continued.

Chains Set a sandstone, 24x18x8 ins., 18 ins. in the ground, for closing cor. of secs. 5 and 6, marked C.C. on S., with 5 grooves on E. and 1 groove on W. faces; from which

A cedar, 30 ins. diam., bears S. 65° E., 32 lks. dist., marked T. 16 S., R. 20 E., S. 5, ... B.T.

A cedar, 30 ins. diam., bears S. 50° W., 35 lks. dist., marked T. 16 S., R. 20 E., S. 6, ... B.T.

Land, mountainous and rolling mesa .

Soil, gravelly and sandy loam and rocky; 2nd and 4th rate.

Timber, cedar and pinion pine.

Undergrowth, sage brush and ~~greasewood~~.

Good grass for grazing.

Mountainous or heavily timbered land, or land covered with dense undergrowth, 129.90 chs.

October 14, 1901..

GENERAL DESCRIPTION.

This township contains several varieties of land . from level mesas to high rocky ridges and deep ,box canons, and the soil ranges from rocks to sandy and clay loam. The soil of the mesas, bottoms of canons and some of the sloping ridges is generally sandy or clay loam; 2nd rate; the soil of the remaining portion of the township is mostly gravelly and rocky; 3rd and 4th rate.

The township is fairly well watered by Hill Creek which runs through the west tier of sections and Willow Creek which runs through sections 25 and 36, also Corral and Pioche Creek. Cedar, pinion pine, and some red pine timber are found in nearly all parts of the township but it is mostly scrubby and not valuable for commercial purposes. Willard Cherrington has a cabin and corral in section 18, not seen from any of my lines. There is no mineral in the township.

Subdivision of T. 16 S., R. 20 E. -Concluded.

The township is well adapted for grazing purposes.

Andrew J. Stewart Jr.
U.S. Deputy Surveyor

Volume

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R0291

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PAGE

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by
....., United States Deputy Surveyor, to assist in running, measuring, and
marking the lines and corners described in the foregoing field notes of the survey of
showing the respective capacities in which they acted:

....., Chainman.

....., Chainman.

....., Moundman.

....., Moundman.

....., Axman.

....., Axman.

....., Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted

....., United States Deputy Surveyor, in surveying all
those parts or portions of the

....., of the,
meridian, of which are represented
in the foregoing field notes as having been surveyed by him and under his direction; and that said survey
has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the
corner monuments established, according to the instructions furnished by the United States Surveyor

General for

....., Chainman.

....., Chainman.

....., Moundman.

....., Moundman.

....., Axman.

....., Axman.

....., Flagman.

Subscribed and sworn to before me this

day of, 180 }



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

solemnly swear that, in pursuance of a contract received from _____, bearing date of the
United States Surveyor General for _____, day of _____, 18_____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____.

....., of the.....
meridian, in the....., which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for....., and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor

Subscribed by said _____, and sworn to before me
this _____ day of _____, 189_____.

A circular seal impression featuring a decorative border of small circles and the word "SEAL" in the center.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL

Salt Lake City, Utah, March 19, 1913.

executed by *W. H. Stewart Jr.*
under his contract No. 243, dated April 19, 1901, 189, having
critically examined, and the necessary corrections and explanations made, the said field notes, and
surveys they describe, are hereby approved.
E. M. P. [Signature]

Edward A. Parker Jr.
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in
..... has been correctly copied from the original notes on file in this office.

United States Surveyor Gene

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R.

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FIELD NOTES

N.S. 6.

OF THE SURVEY OF THE

TEST BOUNDARY

of

Township No. 16 South, Range No. 19 East

Of the SALT LAKE BASE AND Meridian,

in the STATE OF UTAH

AS SURVEYED BY

Andrew J. Stewart Jr., United States Deputy Surveyor,

Under his Contract No. 243, dated April 12, 1901, #80X.

Survey commenced October 15, 1901, #80X.

Survey completed October 16, 1901, #80XX.

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High.

Cab.

J

6 49-90¹

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BOOK

NAMES AND DUTIES OF ASSISTANTS.

.....William Matson.....Chairman

.....Harvey M. Cluff.....Chairman

.....William Andrews.....Moundman

.....Arthur Wilde.....Moundman

.....Omero Marriotti.....Axman

.....Victor D. Cram.....Flagman

In preliminary affidavits sealark C Sp 195 R 20 E

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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

We, and

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., Chainman.

....., Chainman.

Subscribed and sworn to before me this }
day of , 189 }
.....



We, and

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., Moundman.

....., Moundman.

Subscribed and sworn to before me this }
day of , 189 }
.....



We, and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., Axman.

....., Axman.

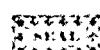
Subscribed and sworn to before me this }
day of , 189 }
.....



I, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., Flagman.

Subscribed and sworn to before me this }
day of , 189 }
.....



West boundary of T. 16 S., R. 19 E.

Survey commenced October 15, 1901, and executed with a W. and L. E. Gurley light mountain transit, No. 1, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs. The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, on May 29, 1901.

I examine the adjustments of the instrument, and correct the level and collimation errors, then, to test the solar apparatus by comparing its indications resulting from solar observations made during p.m. and a.m. hours, with a true meridian, established by observation on Polaris, I proceed as follows:

At the cor. of Tps. 16 and 17 S., Rs. 18 and 19 E., heretofore described, latitude $39^{\circ} 23' N.$, longitude $109^{\circ} 55' W.$, I set off $39^{\circ} 23' N.$, on the lat. arc; $8^{\circ} 30' S.$, on the decl. arc; and at 3 h 2 m p.m., l.m.t., determine a true meridian, with the solar, and mark a point thereof on a stone, firmly set in the ground, 5.00 chs. N. of the cor.

October 15, 1901.

October 16, 1901: At 5 h 30 m a.m., l.m.t., I observe Polaris at western elongation, in accordance with the Manual, and mark a point in the line thus determined by a tack driven in a wooden plug, set in the ground, 5.00 chs. N. of cor. west of the stone already set.

At 7 h 30 m a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ} 34.5'$ to the east, and mark a point in the true meridian thus determined by cutting a small groove in the stone, already set 5.00 chs. N. of the cor; on which the true meridian falls 0.34 ins. east of

West boundary of T.16 S., R.19 E.-Continued.

Chains the true meridian determined with the solar.

At 8 h 2 m a.m., l.m.t., I set off $59^{\circ}23'N.$, on the lat. arc; $6^{\circ}44'S.$, on the decl. arc; and mark a point in the true meridian, determined with the solar, by a cross on the stone already set, 5.00 chs. N. of the cor.; this mark falls 0.34 ins. east of the true meridian, established with the Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for true meridians, respectively about $0'17''$ west and $0'18''$ east of the true meridian, established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 8 h 30 m a.m., l.m.t., is $15^{\circ}50.8'W.$, the angle thus determined reduced by the table page 100 of the Manual, gives the mean mag. decl. $15^{\circ}48'E.$

From the above described cor.

I run

North, bet. secs. 31 and 36.

Over mountainous land; through dense undergrowth; descend.

32.12 Bottom of hollow, 200 ft. below Tp.cor., course $S.60^{\circ}W.$; ascend.

40.00 Set a sandstone, 18x7x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

50.00 Top of ridge, 300 ft. above hollow, bears $N.70^{\circ}W.$ and $S.70^{\circ}E.$; descend.

60.00 Set a sandstone, 18x10x9 ins., 12 ins. in the ground, for cor. of secs. 25, 30, 31, and 36, marked with 1 notch on S. and 5 notches on N. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous.

West boundary of T. 16 S., R. 19 E. -Continued.

Chains	<p>Soil, sandy and gravelly loam and rocky; 2nd and 4th rate.</p> <p>No timber.</p> <p>Undergrowth, oak and sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.00 chs.</p> <hr/> <p>North, bet. secs. 25 and 30.</p> <p>Over mountainous land; through dense undergrowth; descend.</p> <p>Bottom of hollow, 200 ft. below ridge last crossed, course N. 60° W.; ascend.</p> <p>Set a sandstone, 20x10x5 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p> <p>Top of ridge, 300 ft. above hollow, bears N. 80° W. and S. 80° E.; descend.</p> <p>Set a sandstone, 16x11x4 ins., 11 ins. in the ground, for cor. of secs. 19, 24, 25, and 30, marked with 4 notches on N. and 2 notches on S. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p> <p>Land, mountainous.</p> <p>Soil, sandy and gravelly; 3rd rate.</p> <p>No timber.</p> <p>Undergrowth, oak and sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.00 chs.</p> <hr/> <p>North, bet. secs. 19 and 24.</p> <p>Over mountainous land; through dense undergrowth; descend.</p>
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BOOK A-29

West boundary of T. 16 S., R. 19 E. -Continued.

Chains	
23.75	Bottom of hollow, 200 ft. below sec.cor., course N.30°W.
	Ascend .
40.00	Set a sandstone, 20x9x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
65.00	Top of ridge, 200 ft. above hollow, bears N.30°W. and S.30°E.; descend .
80.00	Set a sandstone, 24x14x5 ins., 18 ins. in the ground, for cor.of secs. 13, 18, 19, and 24, marked with 3 notches on N. and 3 notches on S.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
	Land, mountainous.
	Soil, sandy and gravelly; 3rd rate.
	No timber .
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	October 16, 1901: At the noon hour the sky is overcast and solar observations are impossible..
<hr/>	
	North, bet.secs. 13 and 18.
	Over mountainous land; through dense undergrowth; descend .
30.00	Bottom of hollow, 250 ft. below sec.cor., course N.W.; ascend .
40.00	Top of ridge, 300 ft. above hollow, bears N.W. and S.E.; Set a sandstone, 16x10x4 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
	Descend .

West boundary of T.16 S., R.19 E.-Continued.

Chains	
57.50	Bottom of hollow, 200 ft. below ridge, course N. 30° W.; ascend .
80.00	Set a sandstone, 14x10x6 ins., 9 ins. in the ground, for cor. of secs. 7, 12, 13, and 18, marked with 2 notches on N. and 4 notches on S. edges; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy and gravelly loam; 3rd rate. No timber. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	North, bet. secs. 7 and 12. Over mountainous land; through dense undergrowth; ascend .
20.00	Top of ridge, 250 ft. above sec. cor., bears N. W. and S. E.; descend .
40.00	Set a sandstone, 16x11x4 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
80.00	Set a sandstone, 20x12x4 ins., 15 ins. in the ground, for cor. of secs. 1, 6, 7, and 12, marked with 1 notch on N. and 5 notches on S. edges; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land , or land covered with dense undergrowth, 80.00 chs.

Test boundary of T. 16 S., R. 19 E.-Continued.

Chains	
	North, bet. secs. 1 and 6.
	Over mountainous land; through dense undergrowth; descend.
34.50	Bottom of hollow, 200 ft. below sec. cor., course W.; ascend.
40.00	Top of ridge, 150 ft. above hollow, bears E. and W.: Set a sandstone, 18x14x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. From this cor. a corral bears N. 50° E., about 10.00 chs. dist. (claimant unknown) A spring bears East about 10.00 chs. dist.
	Descend.
80.20	Bottom of hollow, 250 ft. below ridge, course N. W.; ascend.
103.75	Top of ridge, 300 ft. above hollow, bears N. W. and S. E.; descend.
129.90	Intersect the Third Standard Parallel South, 14.42 chs. East of the standard cor. of secs. 34 and 35, on S. bdy. of T. 15 S., R. 18 E., which is a sandstone, 5x14x4 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. Set a sandstone, 15x10x4 ins., 10 ins. in the ground, for closing cor. of Tps. 16 S., Rs. 18 and 19 E., marked C.C. 16 S., on S., 19 E. on E., and 18 E. on W. faces; with 6 grooves on S., E., and W. faces; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor. Pits impracticable. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense under-

West boundary of T.16 S., R.19 E. Concluded.

growth, 129.90 chs.

October 16, 1901.

Boundaries of T.16 S., R.19 E.

Latitudes, departures, and closing errors.

Line designated	true bearing	dist- ance chs.	Latitudes		Departures	
			N. chs.	S. chs.	E. chs.	W. chs.
W.bdy.T.16 S., R.19 E.	North	529.90	629.90			
N.bdy.T.16 S., R.19 E.	East	480.48			480.48	
E.bdy.T.16 S., R.19 E.	South	529.65		529.65		
S.bdy.T.16 S., R.19 E.	S. $89^{\circ} 57' W.$	479.60		.42		479.60
Convergency, Totals			629.90	530.07	481.07	479.60
Error in lat.					.17	
Error in dep.						1.47

This township is nearly all mountainous, is well watered for grazing purposes and should be subdivided.



U.S. Deputy Surveyor.

October 16, 1901.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Andrew J. Stewart Jr.

United States Deputy Surveyor, to assist in running, measuring, and

marking the lines and corners described in the foregoing field notes of the survey of the S., W., and N. bdry. of J. 19 S., R. 20 E., the S. W. and N. bdy. of J. 18 S., R. 20 E.; the S., W., and N. bdy. of J. 18 S., R. 19 E., the S. W. and N. bdy. of J. 17 S., R. 19 E., the W. bdy. of J. 16 S., R. 20 E.; and the W. bdy. of J. 16 S., R. 19 E. of the Salt Lake Base and meridian, Utah, showing the respective capacities in which they acted:

William Matson, Chainman.
 Harvey M. Cluff, Chainman.
 William E. Andrews, Moundman.
 Arthur Wilde, Moundman.
 Omero Merriotti, Axman.
 , Axman.
 Victor D. Crann, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Andrew J. Stewart Jr.

United States Deputy Surveyor, in surveying all those parts or portions of the S., W., and N. bdy. of J. 19 S., R. 20 E., the S. W. and N. bdy. of J. 18 S., R. 20 E., the S. W. and N. bdy. of J. 18 S., R. 19 E., the S. W. and N. bdy. of J. 17 S., R. 19 E., the W. bdy. of J. 17 S., R. 19 E., the W. bdy. of J. 16 S., R. 20 E.; and the W. bdy. of J. 16 S., R. 19 E. of the Salt Lake Base and meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Utah.

William Matson, Chainman.

Harvey M. Cluff, Chainman.

William E. Andrews, Moundman.

Arthur Wilde, Moundman.

Omero Merriotti, Axman.

V. D. Crann, Axman.

Subscribed and sworn to before me this 20th

day of November, 180-1901 }
 180-1901 }



Howard Thomas
 Notary Public
 My commission expires
 March 26, 1907

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Andrew J. Stewart Jr., United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Edward H. Anderson, United States Surveyor General for Utah, bearing date of the 12 day of April 1901, 1891, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the S.W. and N. bds. of T.19 S.R.20 E. W. and N. bds. of T.18 S.R.20 E.; S.W. and N. bds. of T.8 S.R.19 E.; W. and N. bds. of T.17 S.R.20 E.; W. and N. bds. of T.17 S.R.19 E.; W. bdy. of T.16 S.R.20 E.; and W. bdy. of T.16 S.R.19 E. of the Salt Lake Base and Meridian in the State of Utah, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Andrew J. Stewart Jr.
United States Deputy Surveyor.

Subscribed by said Andrew J. Stewart Jr., and sworn to before me }
this 10th day of June 1901, 1891 }

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah March 19, 1903

The West Boundary of
Township 16 South Range 19 East of the Salt
Park Base Meridian, Utah

executed by Andrew J. Stewart Jr.
under his contract No. 243, dated February 12, 1901, 1891, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward H. Anderson
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General

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Aug. June 20. 1901.

4-679.

S.

BOOK A-291

Ex. 3.10.

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION

of

Township No. 16 South, Range No. 19 East,

Of the SALT LAKE BASE AND Meridian,
in the STATE OF UTAH

AS SURVEYED BY

Andrew J. Stewart Jr., United States Deputy Surveyor,

Under his Contract No. 243, dated April 12, 1901. 188K

Survey commenced October 17, 1901. 188K

Survey completed October 30, 1901. 188K

6-161

Aug. 6. 12-10
C. J. Clegg

7270

NAMES AND DUTIES OF ASSISTANTS.

William Matson	Chairman
Harvey M. Cluff	Chairman
William E. Andrews	Manager
Arthur Wilde	Manager
Omero Mariotti	German
Nicton D. Cram	Flagman

In preliminary affairs its best *D. G. C. P. & D.*

BOOK A-29

INDEX DIAGRAM.

Township _____, *Range* _____

6	5	4	3	2	1
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18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

WE, and do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

, Chainman

, Chainman

Subscribed and sworn to before me this }
day of , 189 }



WE, and do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey

, Moundma

, Moundma

Subscribed and sworn to before me this }
day of , 189 }



WE, and do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey

, Axm

, Axm

Subscribed and sworn to before me this }
day of , 189 }



I, , do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

, Flag

Subscribed and sworn to before me this }
day of , 189 }



Subdivision of T.16 S., R.19 E.-

Survey commenced October 17, 1901, and executed with a W. and L.E. Gurley light mountain transit No. 1, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs. The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, on May 29, 1901.

I examine the adjustments of the instrument, and correct the level and collimation errors, then, to test the solar apparatus by comparing its indications resulting from solar observations made during p.m. and a.m. hours with a true meridian, determined by observation on Polaris, I proceed as follows:

At the cor. of secs. 1, 2, 35, and 36, on S. bdy. of Tp., heretofore described, latitude $39^{\circ} 23' N.$ longitude $109^{\circ} 49' W.$, I set off $39^{\circ} 23' N.$, on the lat. arc; $9^{\circ} 13' S.$, on the decl. arc; and at 3 h 2 m p.m., l.m.t., determine a true meridian, with the solar, and mark a point thereof on a stone firmly set in the ground, 5.00 chs. N. of the cor.

October 17, 1901.

October 18, 1901: At 5 h 31 m a.m., l.m.t., I observe Polaris at western elongation, in accordance with the Manual, and mark a point in the line thus determined, by a tack driven in a wooden plug set in the ground, east of the stone, already set 5.00 chs. N. of the cor. At 6 h 58 m a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ} 34.5'$ to the east and mark a point in the true meridian, thus determined, by cutting a small groove in the stone, already set 5.00 chs. N. of the cor.; on which the true meridian falls 0.23 ins. east of the true meridian, determined with the solar.

Subdivision of T.16 S., R.19 E.-Continued.

Chains	<p>At 7 h 58 m a.m., l.m.t., I set off $39^{\circ} 23' N.$, on the lat. arc; $9^{\circ} 20' S.$, on the decl. arc; and mark a point in the true meridian, determined with the solar, by a cross on the stone, already set 5.00 chs. N. of the cor.; this mark falls 0.38 ins. east of the true meridian established by Polaris observation.</p> <p>The solar apparatus by p.m. and a.m. observations, defines positions for true meridian, respectively about $0' 12''$ west and $0' 20''$ east of the true meridian established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.</p> <p>The magnetic bearing of the true meridian, at 8 h 0 m a.m., l.m.t., is $15^{\circ} 50.6' W.$, the angle thus determined reduced by the table page 100 of the Manual, gives the mean mag. decl. $15^{\circ} 48' E.$</p> <p>From the above described cor.</p> <p>I run . . .</p> <p>N.$0^{\circ} 01' W.$, bet. secs. 35 and 36.</p> <p>Over rolling mesa; through dense undergrowth.</p> <p>Set a sandstone, $16 \times 10 \times 6$ ins., 11 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p> <p>Set a sandstone, $18 \times 10 \times 5$ ins., 12 ins. in the ground, for cor. of secs. 25, 26, 35, and 36, marked with 1 notch on S. and 1 notch on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p> <p>Land, rolling mesa.</p> <p>Soil, sandy and clay loam; 2nd rate.</p> <p>No timber.</p> <p>Undergrowth, sage brush and shadscales.</p> <p>Good grass for grazing.</p> <p>Land, covered with dense undergrowth, 80.00 chs.</p>
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Subdivision of T.16 S., R.19 E. -Continued.

Chains	N.89° 57'E., on a random line bet. secs. 25 and 36.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.08	Intersect the E.bdy. of Tp., at the cor. of secs. 25, 30, 31, and 36, heretofore described. Thence I run S.89° 57'W., on a true line bet. secs. 25 and 36. Over level land in bottom of Hill Creek Canon; through dense willows.
0.50	Hill Creek, 15 lks. wide, 1 ft. deep, sandy bottom, course N.20°E.
4.00	Leave canon bottom, bears N.20°E. and S.20°W. Leave willows and enter heavy timber, bears N.20°E. and S. 20°W. Ascend.
30.00	Top of ascent, bears N. and S. 300 ft. above canon; leave timber and enter dense undergrowth, bears N. and S. Thence over rolling mesa.
40.04	Set a sandstone, 24x6x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
80.08	The cor. of secs. 25, 26, 35, and 36. Land, mountainous and rolling mesa. Soil, sandy and clay loam and rocky; 2nd and 4th rate. Timber, cedar and pinon pine. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.08 chs.
40.00	N.0° 01'W., bet. secs. 25 and 26. Over rolling mesa; through dense undergrowth. Set a sandstone, 18x14x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Subdivision of T. 16 S., R. 19 E.-Continued.

Chains	
78.00	Edge of mesa, bears N. 20° E. and S. 20° W.; descend.
80.00	Set a limestone, $20 \times 14 \times 4$ ins., 15 ins. in the ground, for cor. of secs. 23, 24, 25, and 26, marked with 2 notches on S. and 1 notch on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
	Land, mountainous and rolling mesa.
	Soil, sandy and clay loam and gravelly; 2nd and 3rd rate.
	No timber.
	Undergrowth, sage brush and shadscales.
	A very little grass.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	October 18, 1901: At the noon hour the sky is overcast and solar observations are impossible.
-	N. $89^{\circ} 57' E.$, on a random line bet. secs. 24 and 25.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.98	Intersect the E. bdy. of Tp., 5 lks. N. of the cor. of secs. 19, 24, 25, and 30, heretofore described.
	Thence I run
	S. $89^{\circ} 59' W.$, on a true line bet. secs. 24 and 25.
	Over mountainous land; through scattering timber; ascend.
22.00	Top of ridge, 300 ft. above sec. cor., bears N. 20° E. and S. 20° W.; descend.
28.50	Bottom of hollow, 150 ft. below ridge, course N. 5° E.; ascend.
39.99	Set a sandstone, $18 \times 9 \times 7$ ins.; 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
41.75	Top of ascent, 200 ft. above hollow, bears N. 12° E. and

Subdivision of T.16 S., R.19 E.-Continued.

Chains	S.12°W. Leave timber and enter dense undergrowth. Thence over rolling mesa.
78.50	Leave mesa, bears N.20°E and S.20°W.; descend .
79.98	The cor. of secs. 23, 24, 25, and 26. Land, mountainous and rolling mesa Soil, sandy and gravelly loam and rocky; 2nd and 4th rate. Timber, cedar and piñon pine. Undergrowth, sage and oak brush. Good grass for grazing. Mountainous land, or land covered with dense under- growth, 79.98 chs .
	N.0°01'W., bet. secs. 23 and 24. Over mountainous land; through scattering undergrowth, descend .
35.00	Creek, 3 lks. wide, 2 ins. deep, in bottom of Post Canon, 350 ft. below sec. cor., course N.30°E.; ascend .
38.50	Spring branch, 1 lk. wide, 2 ins. deep, course N.E.
40.00	Set a sandstone, 18x14x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impractic- able.
65.00	Creek , 1 lk. wide, 1 in. deep, on side of mountain, course S.E.
74.50	Top of ascent, 300 ft. above canon, bears N.80°E. and S.80 °W.; thence over rolling mesa. Enter heavy timber, bears N.80°E. and S.80°W.
80.00	Set a sandstone, 16x12x4 ins., 11 ins. in the ground, for cor. of secs. 13, 14, 23, and 24, marked with 3 notches on S. and 1 notch on E. edges; from which . A cedar, 6 ins. diam., bears N.65°E., 70 lks. dist., marked T.16 S., R.19 E., S.13, B.T. A cedar, 8 ins. diam., bears S.38°E., 31 lks. dist., marked T.16 S., R.19 E., S.24, B.T. A piñon pine, 30 ins. diam., bears S.67°W.,

Subdivision of T. 16 S., R. 19 E. -Continued.

Chains	89 lks. dist., marked T. 16 S., R. 19 E., S. 23 B.T. A cedar, 5 ins. diam., bears N. 65° W., 19 lks. dist., marked T. 16 S., R. 19 E., S. 14, B.T. Land, mountainous and rolling mesa. Soil, sandy and gravelly loam and rocky; 2nd and 4th rate. Timber, cedar and pinion pine. Undergrowth, sage brush. Good grass for grazing. Mountainous or heavily timbered land, 80.00 chs.
	N. 89° 59' E., on a random line bet. secs. 13 and 24.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
79.94	Intersect the E. bdy. of Tp., 2 lks. N. of the cor. of secs. 13, 18, 19, and 24, heretofore described. Thence I run West, on a true line bet. secs. 13 and 24. Over mountainous land; through scattering timber and dense undergrowth; ascend .
21.50	Top of ridge, 200 ft. above sec. cor., bears N.E. and S.W.; descend .
39.97	Set a sandstone, 24x12x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impractic- able.
50.00	Greek, 5 lks. wide, 2 ins. deep, in bottom of Post Canon, 300 ft. below ridge, course N.E.; ascend .
72.50	Top of ascent, 350 ft. above canon, bears N. 60° E. and S. 60° W.; Enter heavy timber, bears N. 60° E. and S. 60° W.; thence over rolling mesa.
79.94	The cor. of secs. 13, 14, 23, and 24. Land, mountainous and rolling mesa. Soil, sandy and gravelly 3rd rate. Timber, cedar and pinion pine. Undergrowth, sage brush. Good grass for grazing.

Subdivision of T.16 S., R.19 E.-Continued.

Chains Mountainous or heavily timbered land, or land covered with dense undergrowth, 79.94 chs.

October 18, 1901.

October 19, 1901: At 8 h 2 m a.m., l.m.t., I set off $39^{\circ} 25' N.$, on the lat. arc; $9^{\circ} 50' S.$, on the decl. arc; and determine a true meridian, with the solar at the cor. of secs. 13, 14, 23, and 24.

Thence I run

N. $0^{\circ} 01' W.$, bet. secs. 13 and 14.

Over rolling mesa; through heavy timber.

- 3.00 Leave timber and enter dense undergrowth, bears E. and W..
- 40.00 Set a sandstone, $18 \times 10 \times 4$ ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 60.00 Leave mesa, bears N.E. and S.W.; enter scattering timber, bears N.E. and S.W.; ascend.
- 78.00 Top of ridge, 150 ft. above mesa, bears N. $80^{\circ} E.$ and S. $80^{\circ} W.$; descend.
- 80.00 Set a limestone, $18 \times 12 \times 5$ ins., 12 ins. in the ground, for cor. of secs. 11, 12, 13, and 14, marked with 4 notches on S. and 1 notch on E. edges; from which

A pinion pine, 20 ins. diam., bears S. $50^{\circ} E.$, 140 lks. dist., marked T.16 S., R.19 E., S.13, B.T.

A pinion pine, 8 ins. diam., bears S. $12^{\circ} W.$, 80 lks. dist., marked T.16 S., R.19 E., S.14, B.T.

No other trees within limits; raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous and rolling mesa.

Soil, sandy and gravelly loam; 2nd rate.

Timber, cedar and pinion pine.

Undergrowth, sage brush.

Good grass for grazing.

Mountainous or heavily timbered land, or land covered

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Subdivision of T.16 S., R.19 E.-Continued.

- Chains with dense undergrowth, 80.00 chs.
- East, on a random line bet. secs. 12 and 13.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.02 Intersect E. bdy. of Tp., at the cor. of secs. 7, 12, 13, and 18, heretofore described.
- Thence I run
- ✓ West, on a true line bet. secs. 12 and 13.
- Over mountainous land; through scattering undergrowth; ascend.
- 25.00 Top of ascent, 300 ft. above sec. cor., bears N. 25° E. and S. 25° W.; Enter dense undergrowth and scattering timber, bears N. 25° E. and S. 25° W.; thence over rolling mesa.
- 40.01 Set a sandstone, 16x10x8 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which
- A piñon pine, 8 ins., bears N. 33° E., 60 lks. dist., marked $\frac{1}{4}$ S. 12, B.T.
- A piñon pine, 10 ins. diam., bears S. 74° E., 65 lks. dist., marked $\frac{1}{4}$ S. 13, B.T.
- 60.00 Leave mesa, bears N.E. and S.W.; ascend.
- 76.00 Top of ridge, 200 ft. above mesa, bears N.E. and S.W.; descend.
- 80.02 The cor. of secs. 11, 12, 13, and 14.
- Land, mountainous and rolling mesa.
- Soil, sandy and gravelly and rocky; 3rd and 4th rate.
- Timber, cedar and piñon pine.
- Undergrowth, sage brush.
- Good grass for grazing.
- Mountainous land, or land covered with dense undergrowth, 80.02 chs..
-
- N. 0° 01' W., bet. secs. 11 and 12.
- Over mountainous land; through scattering timber and scattering undergrowth; descend.

Subdivision of T 16 S ,R 19 E -Continued.

- Chains
- ,24.00 Leave timber,bears E.and W.
- 28.00 Enter scattering timber,bears E.and W.
- 39.75 Bottom of hollow,200 ft.below sec.cor.,course E.;ascend .
- 40.00 Set a sandstone,20x12x5 ins.,15 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on W.face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
- 77.50 Trail,bears N. 20° E.and S. 20° W.
- 78.00 Top of ridge,200 ft.above hollow,bears N.E.and S.W.;
- 80.00 Set a sandstone,18x8x5 ins.,12 ins.in the ground,for cor.of secs.1,2,11, and 12,marked with 5 notches on S.and 1 notch on E.edges;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
Land,mountainous.
- Soil,sandy and gravelly loam;2nd rate.
- Timber,cedar and pinion pine.
- Undergrowth,oak and sage brush.
- Good grass for grazing.
- Mountainous land,80.00 chs.
- October 19,1901:At the noon hour the sky is overcast and solar observations are impossible.

-
- West,on a random line betsecs.1 and 12.
- 40.00 Set temp. $\frac{1}{4}$ sec.cor.
- 79.96 Intersect E.bdy.of Tp.,12 lks.S.of the cor.of secs.1,6,7, and 12,heretofore described.
Thence I run
 $S.89^{\circ} 55'W.$,on a true line betsecs.1 and 12.
Over mountainous land;through scattering timber;descend .
- 20.00 Bottom of hollow,100 ft.below sec.cor.,course S.;ascend .
- 37.50 Wash,25 lks.wide,10 ft.deep,course S.
- 39.98 Set a sandstone,30x9x7 ins.,22 ins.in the ground,for

Subdivision of T. 16 S., R. 19 E. -Continued

	Chains $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on N.face; from which A pine, 6 ins. diam., bears N. 20° E., 60 lks. dist., marked $\frac{1}{2}$ S.1, B.T.
	* A pinion pine, 9 ins. diam., bears S. 60° W., 60 lks. dist., marked $\frac{1}{2}$ S.12, B.T.
78.80	Trail on top of ridge, 300 ft. above hollow, bears N.E. and S.W.; descend. Enter scattering sage brush.
79.96	The cor.of secs.1,2,11, and 12. Land, mountainous. Soil, sandy and gravelly; 3rd rate. Timber, cedar and pinion pine. Undergrowth, oak and sage brush, mostly sage. Good grass for grazing. Mountainous land, 79.96 chs.
	On account of closing on the Standard Parallel I run N. $0^{\circ}01'$ W., on a true line betsecs.1 and 2. Over mountainous land; through scattering timber and scattering undergrowth; descend gradually.
8.00	Begin more abrupt descent, bears E. and W.
27.00	Bottom of hollow, 300 ft. below sec.cor., course W.; as- cend.
32.00	Leave timber, bears E. and W.
35.50	Trail, bears N.W. and S.E.
40.00	Set a sandstone, 34x26x4 ins., 25 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.Pits impractic- able.
60.00	Top of ridge, 250 ft. above hollow, bears N.W. and S.E.; descend.
105.00	Bottom of hollow, 175 ft. below ridge, course N. 30° E.; ascend.
130.00	Intersect the Third Standard Parallel South, 14.74 chs. East of the Standard cor.of secs.33 and 34 , on S. bdy.

Subdivision of T.16 S.,R.19 E.-Continued.

Chains of T.15 S.,R.19 E.,which is a limestone,12x10x6 ins. above ground,firmlly set, and marked and witnessed as described by the surveyor general.

Set a sandstone,24x14x8 ins.,18 ins.in the ground,for closing cor.of secs.1 and 2,marked C.C.on S.,with 1 groove on E.and 5 grooves on W.faces;from which

A cedar,30 ins.diam.,bears S.65° E.,32 lks. dist.,marked . . T.16 S.,R.19 E.,S.1,B.T.

A cedar,30 ins.diam.,bears S.50° W.,35 lks. dist.,marked T.16 S.,R.19 E.,S.2,B.T.

Land,mountainous.

Soil,sandy and gravelly;3rd rate.

Timber,pinion pine and cedar.

Undergrowth,sage brush.

Good grass for grazing.

Mountainous land,130.00 chs.

October 19,1901.

October 21,1901:At 8 h 3 m a.m.,l.m.t.,I set off 39° 23'N.,on the lat.arc;10° 33'S.,on the decl.arc;and determine a true meridian with the solar at the cor.of secs.2,3,34, and 35, on S.bdy.of Tp.,heretofore described.

Thence I run

N.0°01'W.,betsecs.34 and 35.

Over rolling mesa;through dense sage brush and scattering oak brush.

- | | |
|-------|---|
| 8.00 | Leave mesa,bears N.E. and S.W.;descend . |
| 40.00 | Set a sandstone,12x12x4 ins.,9 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on W.face;and raise a mound of stone,2 ft;base, $1\frac{1}{2}$ ft .high,W.of cor.Pits impracticable. |
| 53.50 | Bottom of hollow,150 ft.below mesa,course N.E.;ascend. |
| 74.00 | Top of ascent,200 ft.above hollow,bears N.80°E.and |

Subdivision of T.16 S R 19 E.-Continued.

Chains S.8°W.; thence over rolling mesa.

- 80.00 Set a sandstone, 18x14x6 ins., 12 ins. in the ground, for cor. of secs. 26, 27, 34, and 35, marked with 1 notch on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous and rolling mesa.

Soil, sandy and gravelly; 3rd rate.

No timber.

Undergrowth, oak and sage brush.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth, 80.00 chs.

N.89°57'E., on a random line bet. secs. 26 and 35.

40.00 Set temp. $\frac{1}{2}$ sec. cor.

80.30 Intersect N. and S. line, 5 lks. S. of the cor. of secs. 25, 26, 35, and 36.

Thence I run

S.89°55'W., on a true line bet. secs. 26 and 35.

Over rolling mesa; through dense undergrowth.

30.00 Leave mesa, bears N.25°E. and S.25°W.; descend.

40.15 Set a limestone, 20x15x5 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

58.25 Bottom of Post Canon, 450 ft. below mesa, course N.25°E.

Ascend abruptly.

75.00 Top of ascent, 450 ft. above canon, bears N.25°E. and S.25°W.; thence over rolling mesa.

- 80.30 The cor. of secs. 26, 27, 34, and 35.

Land, mountainous and rolling mesa.

Soil, sandy and gravelly and rocky; 3rd and 4th rate.

No timber.

Undergrowth, oak and sage brush, mostly sage.

Good grass for grazing.

Subdivision of T. 16 S., R. 19 E. -Continued

Chains	Mountainous land, or land covered with dense undergrowth, 80.30 chs.
	N. 0° 01' W., bet. secs. 26 and 27.
	Over rolling mesa; through dense undergrowth.
37.00	Leave mesa, bears N.E. and S.W.; ascend.
40.00	Set a sandstone, 14x10x8 ins., 9 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
48.00	Top of ridge, 200 ft. above mesa, bears N.E. and S.W.; descend.
67.50	Bottom of hollow, 100 ft. below ridge, course S.E.; ascend.
80.00	Set a sandstone, 18x12x4 ins., 12 ins. in the ground, for cor. of secs. 22, 23, 26, and 27, marked with 2 notches on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous and rolling mesa. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	October 21, 1901: At this cor. I set off 10° 38' S., on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39° 24' N.
	N. 89° 55' E., on a random line bet. secs. 23 and 26.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.22	Intersect N. and S. line, 2 lks. N. of the cor. of secs. 23, 24, 25, and 26.
	Thence I run
	S. 89° 56' W., on a true line bet. secs. 23 and 26.

Subdivision of T. 16 S. R. 1^a E. -Continued

- Chains Over mountainous land; through dense undergrowth; descend abruptly.
- 25.00 Creek, 5 lks. wide, 3 ins. deep, in bottom of Post Canon, 400 ft. below sec. cor., course N. 20° E.; ascend.
- 37.00 Top of ascent, 350 ft. above canon, bears N. 20° E. and S. 20° W.; thence over rolling mesa. Enter scattering timber, bears N. 20° E. and S. 20° W.
- 40.11 Set a sandstone, 20x12x4 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which A pinion pine, 26 ins. diam., bears S. 5° W., 265 lks. dist., marked $\frac{1}{4}$ S. 26, B.T.
- No other trees within limits; raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 65.00 Leave mesa, bears N. 30° E. and S. 20° W.; ascend.
- 80.22 The cor. of secs. 22, 23, 26, and 27.
Land, mountainous and rolling mesa.
Soil, sandy and gravelly; 3rd rate.
Timber, cedar and pinion pine.
Undergrowth, oak and sage brush;
Good grass for grazing.
Mountainous land, or land covered with dense undergrowth, 80.22 chs.
-
- N. 0° 01' W., bet. secs. 22 and 23.
Over mountainous land, through dense undergrowth; ascend.
- 25.00 Top of ridge, 200 ft. above sec. cor., bears N. 30° E. and S. 30° W.; descend.
- 40.00 Set a limestone, 30x8x5 ins. 15 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 63.10 Bottom of hollow, 150 ft. below ridge, course N. 20° E.; ascend.
- 80.00 Set a sandstone, 20x12x4 ins., 15 ins. in the ground, for cor. of secs. 14, 15, 22, and 23, marked with 3 notches on

Subdivision of T.16 S., R.19 E.-Continued.

- Chains S. and 2 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor.Pits impracticable.
 Land, mountainous.
 Soil, sandy and gravelly; 3rd rate.
 No timber.
 Undergrowth, oak and sage brush.
 Good grass for grazing.
 Mountainous land, or land covered with dense undergrowth, 80.00 chs.
-
- N. $89^{\circ} 56' E.$, on a random line bet. secs. 14 and 23.
 40.00 Set temp. $\frac{1}{2}$ sec.cor.
 80.10 Intersect N. and S.line, at the cor.of secs. 13, 14, 23, and 24.
 Thence I run
 S. $89^{\circ} 56' W.$, on a true line bet. secs. 14 and 23.
 Over rolling mesa; through heavy timber.
 7.00 Leave heavy timber and enter scattering timber, bears N. and S. Enter dense undergrowth, bears N. and S.
 40.05 Edge of mesa, bears N. $25^{\circ} E.$ and S. $15^{\circ} W.$.
 Set a sandstone, 15x10x5 ins., 10 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; from which
 A pinion pine, 10 ins. diam., bears S. $10^{\circ} E.$,
 70 lks. dist., marked $\frac{1}{2}$ S. 23, B.T.
 No other tree within limits; raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor.Pits impracticable.
 Ascend.
 56.00 Top of ridge, 200 ft. above mesa, bears N. $30^{\circ} E.$ and S. $30^{\circ} W.$; descend.
 75.90 Bottom of hollow, 350 ft. below ridge, course N. $20^{\circ} E.$; ascend.
 80.10 The cor.of secs. 14, 15, 22, and 23.
 Land, mountainous and rolling mesa.
 Soil, sandy and gravelly; 3rd rate.
 Timber, cedar and pinion pine.
 Undergrowth, oak and sage brush.

Subdivision of T 16 S R 19 E -Continued

Chains Good grass for grazing.

Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.10 chs.

October 21, 1901.

October 22, 1901: At 8 h 2 m a.m., l.m.t., I set off 3° 25' N., on the lat.arc; 10° 55' S., on the decl.arc; and determine a true meridian, with the solar, at the cor. of secs. 14, 15, 22, and 23.

Thence I run

N. 0° 01' W., bet. secs. 14 and 15.

Over mountainous land; through dense undergrowth; ascend.

- 9.00 Top of ridge, 30 ft. above sec.cor., bears N. 20° E. and S. 20° W.; descend.
- 15.00 Bottom of hollow, 150 ft. below ridge, course N.E.; ascend.
- 31.50 Top of ridge, 200 ft. above hollow, bears N.E. and S.W.; descend.
- 40.00 Set a sandstone, 16x12x4 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impractical.
- 46.75 Bottom of canon, 350 ft. below ridge, course N.E.; ascend.
- 50.20 Trail, bears N.E. and S.W.
- 55.00 Enter heavy timber, bears E. and W.
- 80.00 Set a sandstone, 24x13x5 ins., 18 ins. in the ground, for cor. of secs. 10, 11, 14, and 15, marked with 4 notches on S. and 2 notches on E. edges; from which
 A pinion pine, 8 ins. diam., bears N. 45° E., 40 lks. dist., marked T. 16 S., R. 19 E., S. 11, B.T.
 A pinion pine, 8 ins. diam., bears S. 55° E., 126 lks. dist., marked T. 16 S., R. 19 E., S. 14, B.T.
 A pinion pine, 9 ins. diam., bears S. 30° W., 126 lks. dist., marked T. 16 S., R. 19 E., S. 15, B.T.

Subdivision of T.16 S..R 19 E.-Continued

Chains	A cedar, 8 ins. diam., bears N.20°W., 20 lks. dist., marked T.16 S., R.19 E., S.10, B.T. Land, mountainous. Soil, sandy and gravelly, 3rd rate. Timber, cedar and pinion pine. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.
40.00	N.89° 56'E., on a random line bet. secs. 11 and 14. Set temp. $\frac{1}{4}$ sec. cor.
60.20	Intersect N. and S. line, 15 lks. S. of the cor. of secs. 11, 12, 13, and 14. Thence I run
	S.89° 50'W., on a true line bet. secs. 11 and 14. Over mountainous land; through dense undergrowth; as- cend .
3.50	Enter heavy timber, bears N. and S.
16.00	Top of ridge, 200 ft. above sec. cor., bears N.20°E. and S.20°W.; descend .
39.00	Bottom of hollow, 200 ft. below ridge, course N.W.; as- cend through scattering timber .
40.10	Set a limestone, 18x14x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impractic- able.
46.00	Top of ridge, 150 ft. above hollow, bears N.20°W. and S.20°E.; descend .
57.25	Trail, bears N.30°E. and S.30°W.
59.25	Bottom of canon, 300 ft. below ridge, course N.30°E.; as- cend .
80.20	The cor. of secs. 10, 11, 14, and 15. Land, mountainous. Soil, sandy and gravelly; 3rd rate. Timber, cedar and pinion pine.

Subdivision of T. 16 S. R. 19 E. -Continued.

	Chains Undergrowth, sage brush. Good grass for grazing. Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.20 chs.
	N. 0° 01' W., bet. secs. 10 and 11. Over mountainous land; through scattering timber and scattering undergrowth; ascend .
8.50	Top of ridge, 150 ft. above sec. cor., bears N.E. and S.W. leave timber, bears with ridge. Descend .
34.00	Bottom of hollow, 120 ft. below ridge, course N.E.; as- cend .
34.50	Trail,bears N.E. and S.W.
40.00	Set a limestone, 18x12x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impractic- able.
43.20	Enter heavy timber, bears E. and W.
78.00	Top of ridge, 100 ft. above canon, bears N.E. and S.W.; leave timber, bears with ridge . Descend .
80.00	Set a limestone, 16x10x6 ins., 11 ins. in the ground, for cor.of secs. 2,3,10, and 11, marked with 5 notches on S. and 2 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable. Land, mountainous. Soil, sandy and gravelly; 3rd rate. Timber, cedar and pinion pine. Undergrowth, sage brush. Good grass for grazing. Mountainous or heavily timbered land, 80.00 chs.
	October 22, 1901 :At this cor.I set off 11° 00' S., on the decl.arc; and at 0 h 2 m p.m., l.m.t.; observe the sun on the meridian, the resulting lat. is 39° 27' N.

Subdivision of T.16 S., R.19 E. - Continued.

Chains	
	N.89°50'E., on a random line bet. secs. 2 and 11.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
80.08	Intersect N. and S. line, 17 lks. N. of the cor. of secs. 1, 2, 11, and 12. Thence I run S.89°57'W., on a true line bet. secs. 2 and 11. Over mountainous land; through dense undergrowth; descend.
18.00	Bottom of hollow, 175 ft. below sec. cor., course N.W.; ascend.
22.50	Top of ridge, 100 ft. above hollow, bears N.W. and S.E.; descend.
35.75	Bottom of canon, 275 ft. below ridge, course N.; ascend.
36.00	Trail, bears N. and S.
40.04	Set a sandstone, 18x10x5 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
78.00	Top of ridge, 300 ft. above canon, bears N.E. and S.W.; descend.
80.08	The cor. of secs. 2, 3, 10, and 11. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, sage brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.08 chs.
	For reasons already explained. I run N.0°01'W., on a true line bet. secs. 2 and 3; Over mountainous land; through scattering undergrowth; descend.
35.50	Bottom of hollow, 250 ft. below sec. cor., course N.E.;

Subdivision of T.16 S., R.19 E.-Continued

chains ascend through scattering timber .

40.00 Set a sandstone, 16x12x4 ins., 11 ins. in the ground, for
 $\frac{1}{2}$ sec.cor., marked $\frac{1}{4}$ on W.face; from which
An oak, 4 ins. diam., bears S.10°E., 30 lks.
dist., marked $\frac{1}{2}$ S.2, B.T.
An oak, 4 ins. diam., bears N.70°W., 15 lks.
dist., marked $\frac{1}{2}$ S.3, B.T.

- 54.00 Top of ridge, 250 ft. above hollow, bears N.E. and S.W.;
descend .

77.25 Bottom of hollow, 350 ft. below ridge, course N.E.;
ascend .

130.30 Intersect the Third Standard Parallel South, 14.60 chs.
East of the Standard cor.of secs.32 and 33, which is
a sandstone, 8x14x4 ins., above ground, firmly set, and
marked and witnessed as described by the surveyor
general.
Set a sandstone, 30x12x6 ins., 22 ins. in the ground, for
closing cor.of secs.2 and 3, marked C.C.on S., with 2
grooves on E.and 4 grooves on W.faces; and raise a
mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor.Pits
impracticable.
Land, mountainous.
Soil, sandy and gravelly; 3rd rate.
Timber, cedar and pinion pine.
Undergrowth, sage brush.
Good grass for grazing.
Mountainous land, 130.30 chs.

October 22, 1901.

October 23, 1901: At 8 h 4 m a.m., l.m.t., I set off 39°
23'N., on the lat.arc; 11°16'S., on the decl.arc; and de-
termine a true meridian, with the solar at the cor.of
secs.3, 4, 33, and 34, on S.bdy.of Tp., herefore des-
cribed.

Thence I run

N.0°02'W., bet.secs.33 and 34.

Subdivision of T. 16 S., R. 19 E. -Continued.

	Chains Over rolling mesa; through dense aspen saplings.
5.00	Leave mesa, bears N.70°E. and S.70°W.; descend .
7.50	Bottom of hollow, 100 ft. below mesa, course N.60°E.; ascend ..
10.75	Top of ascent, 100 ft. above hollow, bears N.E. and S.W.; thence over rolling mesa . Leave aspen and enter dense sage brush. . . .
35.50	Leave mesa, bears N.E. and S.75°W.; ascend ..
40.00	Set a limestone, 14x10x6 ins., 9 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable.
67.00	Top of ridge, 200 ft. above mesa, bears E. and W.; descend .
72.00	Bottom of hollow, 150 ft. below ridge, course N.E.; ascend .
76.00	Top of ridge, 200 ft. above hollow, bears N.20°E. and S. 20°W.; descend .
80.00	Set a sandstone, 22x16x4 ins., 16 ins. in the ground, for cor.of secs. 27, 28, 33, and 34, marked with 1 notch on S.and 3 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable.
	Land, mountainous and rolling mesa.
	Soil, sandy and gravelly; 3rd rate.
	No timber.
	Undergrowth, sage brush and aspen saplings.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	N.89°57'E., on a random line betsecs. 27 and 34.
40.00	Set temp. $\frac{1}{2}$ sec.cor.
80.04	Intersect N.and S.line, at the cor.of secs., 26, 27, 34, and 35.
	Thence 1 run

Subdivision of T. 16 S., R. 19 E.-Continued...

Chains	S. $89^{\circ} 57' W.$, on a true line bet. secs. 27 and 34. Over rolling mesa; through dense undergrowth; ascend gently.
34.00	Leave mesa, bears N.E. and S.W.; ascend.
40.02	Set a limestone, 24x14x5 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
61.00	Top of ridge, 250 ft. above mesa, bears N. $20^{\circ} E.$ and S. $20^{\circ} W.$; descend.
70.00	Bottom of hollow, 250 ft. below ridge, course N. $20^{\circ} E.$; ascend.
78.50	Top of ridge, 100 ft. above hollow, bears N. $10^{\circ} E.$ and S. $10^{\circ} W.$; descend.
80.04	The cor. of secs. 27, 28, 33, and 34. Land, mountainous and rolling mesa; Soil, gravelly; 3rd rate. No timber. Undergrowth, sage, oak and service berry. Good grass for grazing. Mountainous land, or land covered, with dense undergrowth, 80.04 chs.
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	N. $0^{\circ} 02' W.$, bet. secs. 27 and 28. Over mountainous land; through dense undergrowth; descend.
40.00	Bottom of hollow, 250 ft. below sec.cor., course N.E.; Set a limestone, 18x12x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W.of cor. Pits impracticable. Ascend.
49.50	Top of ridge, 50 ft. above hollow, bears N. $70^{\circ} E.$ and S. $70^{\circ} W.$; descend.
66.50	Bottom of hollow, 100 ft. below ridge, course N. $50^{\circ} E.$;

Subdivision of T 16 S R 19 E -Continued

Chains	ascend..
80.00	Set a limestone, 24x15x4 ins., 18 ins. in the ground, for cor. of secs. 21, 22, 27, and 28, marked with 2 notches on S. and 3 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, sandy and gravelly; 3rd rate.
	No timber.
	Undergrowth, sage brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	October 23, 1901: At the noon hour the sky is overcast and solar observations are impossible.

N. $89^{\circ} 57' E.$, on a random line bet. secs. 22 and 27.

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|-------|---|
| 40.00 | Set temp. $\frac{1}{4}$ sec. cor. |
| 80.10 | Intersect N. and S. line, 5 lks. N. of the cor. of secs. 22, 23, 26, and 27.. |
| | Thence I run
S. $89^{\circ} 59' W.$, on on a true line bet. secs. 22 and 27. |
| | Over mountainous land; through dense undergrowth; ascend. |
| 32.00 | Top of ridge, 300 ft. above sec. cor., bears N. $20^{\circ} E.$ and S. $20^{\circ} W.$; Descend. |
| 40.05 | Set a limestone, 18x10x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable. |
| 60.00 | Creek, 3 lks. wide, 2 ins. deep, in canon; 300 ft. below ridge, course N.E. A spring of good water bears S.W. about 50.00 chs. dist. Ascend. |
| 80.10 | The cor. of secs. 21, 22, 27, and 28. |
| | Land, mountainous. |
| | Soil, sandy and gravelly. |

Subdivision of T.16 S., R.19 E.-Continued.

Chains	No timber. Undergrowth, sage and oak and service berry brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.10 chs.
	N.0°2'W., bet. secs. 21 and 22. Over mountainous land; through dense undergrowth; ascend.
3.50	Top of ridge, 50 ft. above sec. cor., bears E. and W.; descend.
16.00	Bottom of hollow, 200 ft. below ridge, course N.15°E.; Spring. bears N.E., about 15 circ. dist.; ascend.
40.00	Set a sandstone, 14x10x6 ins., 9 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
60.00	Top of ridge, 250 ft. above hollow, bears N.30°E. and S.30°W.; descend.
80.00	Set a limestone, 18x15x4 ins., 12 ins. in the ground, for cor. of secs. 15, 16, 21, and 22, marked 1C S. on N.E. and 19 E. on S.E. faces; with 3 notches on S. and 3 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Laud, mountainous. Soil, sandy gravelly; 3rd rate.
	No timber. Undergrowth, oak and sage brush. Good grass for grazing.. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	October 23, 1901: At this cor. I set off 39°25'N., on the lat. arc; $11^{\circ}23'S.$, on the decl. arc; and at 3 h 1 m p.m., l.m.t., I determine a true meridian, with the solar, and mark a point thereof on a stone, firmly set in the ground, 5.00 chs. N. of the cor.

Subdivision of T.16 S., R.19 E.-Continued.

Chains	0	October 23, 1901.
		October 24, 1901: At 5 h 8. m a.m., l.m.t., I observe Polaris at western elongation, in accordance with the Manual, and mark a point in the line thus determined by a tack driven in a wooden plug, set in the ground, west of the stone, already set 5.00 chs. N. of the cor. At 7 h 30 m a.m., l.m.t., I lat. off the azimuth of Polaris $1^{\circ}34.5'$ to the east, and mark a point in the true meridian thus determined by cutting a small groove in the stone, already set 5.00 chs. N. of the cor. This mark falls 0.30 ins. east of the true meridian determined with the solar.
		At 8 h 2 m a.m., l.m.t., I set off $39^{\circ}25'N.$, on the lat. arc; $11^{\circ}37'S.$, on the decl. arc; and mark a point in the true meridian determined with the solar, by a cross on the stone, already set 5.00 chs. N. of the cor.; this mark falls 0.26 ins. east of the true meridian established by Polaris observation.
		The solar apparatus by p.m. and a.m. observations defines positions for true meridian, respectively about $0'16''$ west and $0'14''$ east of the true meridian established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.
		The magnetic bearing of the true meridian, at 8 h 3 m. a.m., is $15^{\circ}50.1'W.$, the angle thus determined reduced by the table page 100 of the Manual gives the mean mag. decl. $15^{\circ}47'E.$.
		From the cor. of secs. 15, 16, 21, and 22, I run N. $89^{\circ}59'E.$, on a random line bet. secs. 15 and 22. 40.00 Set temp. $\frac{1}{2}$ sec. cor. 79.98 Intersect N. and S. line, at the cor. of secs. 14, 15, 22,

Subdivision of T. 16 S. R. 19 E. -Continued

Chains	and 23.
	Thence I run S.89° 59'W., on a true line bet. secs. 15 and 22. Over mountainous land; through dense undergrowth; ascend .
17.50	Top of ridge, 250 ft. above sec.cor., bears N.20°E. and S.20°W.; descend .
.39.50	Bottom of canon, 250 ft. below ridge, course N.30°E.; ascend .
39.99	Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
41.00	Sandstone, ledge, 4 ft. high, runs parallel with canon.
.70.00	Top of ridge, 350 ft. above canon, bears N.E. and S.W.; descend .
79.98	The cor. of secs. 15, 16, 21, and 22. Land, mountainous . Soil, <u>sand</u> and gravelly; 3rd rate. No timber. Undergrowth, sage and oak brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.98 chs.
	N.0° 02'W., bet. secs. 15 and 16. Over mountainous land; through dense undergrowth; descend .
19.50	Bottom of hollow, 50 ft. below sec.cor., course N.W.; ascend .
40.00	Set a limestone, 16x10x4 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec.cor. marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
45.00	Top of ridge, 200 ft. above hollow, bears N.W. and S.E.;

Subdivision of T16 S R 19 E -Continued

Chains	descend .
57.75	Bottom of hollow, 300 ft. below sec.cor., course N.30°E.; ascend .
65.00	Enter pinion pine and cedar timber, bears E. and W.
80.00	Set a limestone, 26x16x4 ins., 19 ins. in the ground, for cor. of secs. 9, 10, 15, and 16, marked with 4 notches on S. and 3 notches on E. edges; from which
	A pinion pine, 30 ins. diam., bears N.84°E., 32 lks. dist., marked T.16 S., R.19 E., S.10, B.T.
	A pinion pine, 8 ins. diam., bears S.36°E., 47 lks. dist., marked T.16 S., R.19 E., S.15, B.T.
	A pine, 20 ins. diam., bears S.87°W., 47' lks. dist., marked T.16 S., R.19 E., S.16, B.T.
	A pinion pine, 18 ins. diam., bears N.40°W., 45 lks. dist., marked T.16 S., R.19 E., S.9, B.T.
	Land, mountainous.
	Soil, sandy and gravelly; 3rd rate.
	Timber, pinion pine and cedar.
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 80,00 cbs.
40.00	N.89° 59' E., on a random line bet. secs. 10 and 15 . Set temp. $\frac{1}{4}$ sec.cor.
80.24	Intersect N. and S. line, 17 lks. N. of the cor. of secs. 10, 11, 14, and 15.
	Thence I run
	N.89° 54' W., on a true line bet. secs. 10 and 15.
	Over mountainous land; through dense undergrowth ;as- cend .
3.50	Top of ridge, 50 ft. above sec.cor., bears N. and S.W.; descend .
10.00	Bottom of swale, 80 ft. below ridge, course N.E.; ascend .
30.00	Top of ridge, 600 ft. above hollow, bears N.E. and S.W.; descend .

Subdivision of T. 16 S. R. 19 E. -Continued

Chains	
40.12	Set a sandstone, 16x10x5 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impractic- able.
64.00	Wash in mouth of hollow, 600 ft. below ridge, course N.W.; wash is 30 lks. wide and 10 ft. deep.
66.20	Bottom of hollow, course N.E.; ascend .
70.00	Enter heavy timber, bears N. and S.
80.24	The cor. of secs. 9, 10, 15, and 16. Land, mountainous. Soil, sandy and gravelly; 3rd rate. Timber, cedar and pinion pine. Undergrowth, sage brush. Good grass for grazing. Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.24 chs.
	October 24, 1901: At the noon hour the sky is overcast and solar observations are impossible.
	 N. $0^{\circ} 02'$ W., bet. secs. 9 and 10. Over mountainous land; through dense undergrowth and heavy timber; ascend .
19.00	Top of ridge, 150 ft. above sec. cor., bears N.E. and S.W.; descend . Leave timber, bears with ridge.
40.00	Set a limestone, 18x10x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on W.. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impractic- able.
44.00	Bottom of hollow, 150 ft. below ridge. course N.E.; ascend through heavy timber bears with hollow.
53.00	Top of ridge, 30. ft. above hollow, bears N.E. and S.W.; descend .
75.40	Bottom of canon, 300 ft. below ridge, course N. 50° E.; as- cend .
80.00	Set a sandstone, 30x8x6 ins. 22 ins. in the ground, for

Subdivision of T 16 S .R 19 E -Continued.

Chains	cor.of secs.3,4,9, and 10,marked with 5 notches on S. and 3 notches on E.edges;from which A cedar,10 ins.diam.,bears N.50°E.,35 lks. dist.,marked T.16 S.,R.19 E.,S.3,B.T. A pinion pine,6 ins.diam.,bears S.30°E.,30 lks.dist.,marked T.16 S.,R.19 E.,S.10,B.T. A pinion pine,7 ins.diam.,bears S.40°W.,15 lks.dist.,marked T.16 S.,R.19 E.,S.9,B.T. A cedar,6 ins.diam.,bears N.35°W.,34 lks.di dist.,marked T.16 S.,R.19 E.,S.4,B.T. Land,mountainous. Soil,sandy and gravelly;3rd rate. Timber,cedar and pinion pine. Undergrowth,sage and oak brush. Good grass for grazing. Mountainous or heavily timbered land,or land covered with dense undergrowth,80.00 chs.
40.00	S.89° 54'E.,on a random line betsecs.3 and 10. Set temp. $\frac{1}{4}$ sec.cor.
80.14	Intersect N.and S.line,7 lks.S.of the cor.of secs. 2,3,10, and 11. Thence I run N.89° 57'W.,on a true line betsecs.3 and 10. Over mountainous land;through dense undergrowth;descend .
30.75	Bottom of canon,300 ft.below sec.cor.,course N.E.;ascend.
32.00	Enter heavy timber,bears N.E.and S.W.
40.07	Set a limestone,20x8x6 ins.;15 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on N.face;from which A pinion pine,8 ins.diam.,bears N.60°W.,25 lks.dist.,marked $\frac{1}{4}$ S.3,B.T. A cedar,8 ins.diam.,bears S.40°E.,75 lks. dist.,marked $\frac{1}{4}$ S.10,B.T.
49.00	Top of ridge,200 ft.above hollow,bears N.E.and S.W.;

Subdivision of T. 16 S., R. 19 E. -Continued

Chains	Leave timber, bears with ridge; descend .
66.25	Bottom of hollow, 200 ft. below ridge, course N.E.; ascend .
71.50	Enter heavy timber, bears N. and S.
80.14	The cor. of secs. 3, 4, 9, and 10. Land, mountainous. Soil, sandy and gravelly and rocky; 3rd and 4th rate. Timber, cedar and pinion pine. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.14 chs.
	N. 0° 02' W., on a true line bet. secs. 3 and 4. Over mountainous land; through heavy timber; ascend .
15.00	Top of ridge, 200 ft. above sec. cor., bears N.W. and S.E.; descend .
21.50	Bottom of hollow, 60 ft. below ridge, course S.E.; ascend .
29.00	Top of ridge, 80 ft. above hollow, bears N.E. and S.E.; descend .
34.00	Bottom of hollow, 60 ft. below ridge, course S.E.; ascend .
37.50	Top of ridge, 100 ft. above hollow, bears N.W. and S.E.; Leave timber, bears with ridge,. Descend .
40.00	Set a sandstone, 18x12x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
44.50	Bottom of hollow, 50 ft. below ridge, course S.E.; ascend .
56.50	Top of ridge, 175 ft. above hollow, bears N.E. and S.W.; descend .
72.50	Enter heavy timber, bears E. and W.
85.00	Leave timber, bears E. and W.

Subdivision of T.15 S., R.19 E.-Continued.

Chains

100.50 Bottom of hollow, 300 ft. below ridge, course N.W.; thence along hill side sloping west.

125.00 Bottom of Little Doggy Canon, course N.20°E.; ascend gradually.

130.61 Intersect the Third Standard Parallel South, 14.48 chs. East of the standard cor. of secs. 31 and 32, on S. bdy. of T.15 S., R.19. E., which is a limestone, 6x14x4 ins., above ground, firmly set, and marked and witnessed as described by the surveyor general.
Set a gray limestone, 24x12x5 ins., 18 ins. in the ground, for closing cor. of secs. 3 and 4, marked C.C. on S., with 3 grooves on E. and 3 grooves on W. faces; and raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor. Pits impracticable.

Land, mountainous.

Soil, sandy and gravelly; 3rd rate.

Timber, cedar and pinion pine.

Undergrowth, sage and oak brush.

Good grass for grazing.

Mountainous or heavily timbered land, 130.61 chs.

October 24, 1901.

October 25, 1901: At 8 h 0 m. a.m., l.m.t., I set off $39^{\circ} 23' N.$, on the lat. arc; $11^{\circ} 58' S.$, on the decl. arc; and determine a true meridian, with the solar at the cor. of secs. 4, 5, 32, and 33., on S. bdy. of Tp., heretofore described.

Thence I run

N. $0^{\circ} 03' W.$, bet. secs. 32 and 33.

Over mountainous land; through dense undergrowth; ascend.

8.00 Top of ridge, 50 ft. above sec. cor., bears E. and W.; descend.

40.00 Set a sandcoated limestone, 22x6x5 ins., 15 ins. in the

Subdivision of T 16 S R 19 E -Continued

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|--------|--|
| Chains | ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable. |
| 42.00 | Bottom of swale, 150 ft. below ridge, course E.; ascend. |
| 59.00 | Top of ridge, 150 ft. above swale, bears N. 25° E. and S. 25° W.; descend through scattering timber, bears with ridge. |
| 80.00 | Set a limestone, 20x12x6 ins., 15 ins. in the ground, for cor. of secs. 28, 29, 32, and 33, marked with 1 notch on S. and 4 notches on E.edges; from which |
| | An aspen, 5 ins. diam., bears N. 21° E., 80 lks. dist., marked T.16 S., R.19 E., S.28, B.T. |
| | An aspen, 6 ins. diam., bears S. 67° E., 104 lks. dist., marked T.16 S., R.19 E., S.33, B.T. |
| | An aspen, 5 ins. diam., bears S. 19° W., 34 lks. dist., marked T.16 S., R.19 E., S.32, B.T. |
| | An aspen, 5 ins. diam., bears N. 14° W., 30 lks. dist., marked T.16 S., R.19 E., S.29, B.T. |
| | Land; mountainous. |
| | Soil, sandy and gravelly; 3rd rate. |
| | Timber, aspen. |
| | Undergrowth, oak and sage brush. |
| | Good grass for grazing. |
| | Mountainous land, or land covered with dense undergrowth, 80.00 chs. |
| | <hr/> |
| | N. $89^{\circ}57'$ E., on a random line bet. secs. 28 and 33. |
| 40.00 | Set temp. $\frac{1}{4}$ sec.cor. |
| 79.98 | Intersect N. and S.line, 7 lks. N.of the cor. of secs. 27, 28, 33, and 34. |
| | Thence I run |
| | West, on a true line bet. secs. 28 and 33. |
| | Over mountainous land; through dense undergrowth; descend. |
| 6.00 | Bottom of hollow, 100 ft. below sec.cor., course N. 10° E.; ascend. |

Subdivision of T. 16 S., R. 19 E.-Continued

Chains	
28.50	Top of ridge, 250 ft. above hollow, bears N. 30° E. and S. 30° W.; descend.
33.50	Bottom of hollow, 150 ft. below ridge, course N. 30° E.; ascend.
39.99	Set a sandstone, 16x10x5 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked \pm on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
66.50	Top of ridge, 250 ft. above hollow, bears N. 35° E. and S. 40° W.; descend through scattering timber.
79.98	The cor. of secs. 28, 29, 32, and 33. Land, mountainous. Soil, sandy and gravelly loam; 2nd rate. Timber, aspen. Undergrowth, oak, service berry and sage, brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.98 chs.
	N. 60° 03' W., bet. secs. 28 and 29. Over mountainous land; through scattering timber and dense undergrowth; descend.
1.25	Leave timber, bears E. and W.
5.50	Bottom of hollow, 50 ft. below sec. cor., course W. 30° E.; ascend.
38.50	Top of ridge, 250 ft. above bottom of hollow, bears N. 30° E. and S. 30° W.; descend.
40.00	Set a limestone, 14x10x8 ins., 9 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked \pm on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Hence along side of ridge.
72.00	Head of hollow, 100 ft. below ridge, course N. 80° W.; as - cond.
80.00	Set a limestone, 14x12x5 ins., 9 ins. in the ground, for

Subdivision of T.16 S., R.19 E.-Continued.

Chains cor. of secs. 20, 21, 28, and 29, marked with 2 notches on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, sandy and gravelly loam; 2nd rate.

Timber, aspen.

Undergrowth, oak and sage brush.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth, 80.00 chs.

October 25, 1901: At this cor. I set off 12° 03' S., on the decl. arc; and at 6 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39° 24' N.

East, on a random line bet. secs. 21 and 28.

40.00 Set temp. at sec. cor.

80.08 Intersect N. and S. line, at the cor. of secs. 21, 22, 27, and 28.

Thence I run

West, on a true line bet. secs. 21 and 28.

Over mountainous land; through dense undergrowth; ascend.

19.00 Top of ridge, 150 ft. above sec. cor., bears N. 20° E. and S. 20° W.; descend.

34.44 Bottom of hollow, 100 ft. below ridge, course N.; ascend.

40.04 Set a limestone, 18x10x4 ins., 12 ins. in the ground, for sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

50.50 Top of ridge, 200 ft. above hollow, bears N. 10° E. and S. 20° W.; descend.

66.00 Bottom of hollow, 100 ft. below ridge, course N. 15° E.; ascend.

74.00 Top of ridge, 150 ft. above hollow, bears N. 10° E. and S. 10° E.; descend.

Subdivision of T.16 S., R.19 E.-Continued

Chains	
80.08	The cor. of secs. 20, 21, 28, and 29. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense under-growth, 80.08 chs.
	N. 0° 03' W., bet. secs. 20 and 21. Over mountainous land; through, dense undergrowth; des-cend along west slope of mountain.
40.00	Set a limestone, 18x8x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impractic- able.
79.75	Bottom of hollow, 250 ft. below sec. cor., course N.E.; ascend .
80.00	Set a limestone, 20x16x5 ins., 15 ins. in the ground, for cor. of secs. 16, 17, 20, and 21, marked with 3 notches on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impractic- able. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, oak, sage and mahogany brush. Good grass for grazing. Mountainous land, or land covered with dense under-growth, 80.00 chs.
	East, on a random line, bet. secs. 16 and 21.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
80.26	Intersect N. and S. line, 10 lks. S. of the cor. of secs.

Subdivision of T. 16 S., R. 19 E. -Continued.

Chains	15, 16, 21, and 22. Thence I run S. $89^{\circ} 56' W.$, on a true line bet. secs. 16 and 21. Over mountainous land, through dense undergrowth; des-
40.13	Bottom of hollow, 250 ft. below ridge, course N. $30^{\circ} E.$; Set a sandstone, 18x9x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
49.00	Top of ridge, 150 ft. above hollow, bears N. $20^{\circ} E.$ and S. $20^{\circ} W.$; descend .
86.00	Bottom of hollow, 250 ft. below ridge, course N. E.; ascend .
80.26	The cor. of secs. 16, 17, 20, and 21. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, oak, deer and mahogany brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.26 chs.

October 25, 1901.

October 26, 1901:	At 8 h 2 m a.m., l.m.t., I set off $39^{\circ} 25' N.$, on the lat. arc; $12^{\circ} 19' S.$, on the decl. arc; and determine a true meridian, with the solar, at the cor. of secs. 16, 17, 20, and 21.
Thence I run	N. $0^{\circ} 03' W.$, bet. secs. 16 and 17. Over mountainous land; through dense undergrowth; ascend .
34.00	Top of ridge, 300 ft. above sec. cor., bears N. $25^{\circ} E.$ and S. $25^{\circ} W.$; descend .
40.00	Set a sandstone, 14x10x5 ins., 9 ins. in the ground, for

Subdivision of T 16 S R 19 E -Continued

Chains	$\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
80.00	Set a limestone, 24x12x4 ins., 18 ins. in the ground, for cor. of secs. 8, 9, 16, and 17, marked with 4 notches on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, sandy and gravelly; 3rd rate.
	No timber.
	Undergrowth, oak, sage, and deer brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
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	N. $89^{\circ} 56' E.$, on a random line bet. secs. 9 and 16.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
80.12	Intersect N. and S. line, at the cor. of secs. 9, 10, 15, and 16. Thence I run $S. 89^{\circ} 56' W.$, on a true line bet. secs. 9 and 16. Over mountainous land; through dense undergrowth; ascend.
10.50	Top of ridge, 100 ft. above sec.cor., bears N. and S.; descend.
31.00	Bottom of hollow, 200 ft. below ridge, course N. $20^{\circ} W.$; ascend.
40.06	Set a limestone, 18x12x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
51.00	Top of ridge, 300 ft. above hollow, bears N. $20^{\circ} E.$ and S. $20^{\circ} W.$; descend.
80.12	The cor. of secs. 8, 9, 16, and 17. Land, mountainous.

Subdivision of T.16, S., R.19 E.-Continued.

Chains	<p>Soil, sandy and gravelly loam; 2nd rate.</p> <p>No timber.</p> <p>Undergrowth, oak, service berry and deer brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.12 chs.</p>
	<p>N.0°03'W., bet. secs. 8 and 9.</p> <p>Over mountainous land; through dense undergrowth; descend.</p>
1.00	Bottom of hollow, 10 ft. below sec. cor., course N.50°E.; ascend.
21.40	Top of ridge, 250 ft. above hollow, bears N.20°E. and S.W.; descend.
40.00	Set a sandstone, 14x12x4 ins., 9 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
43.10	Enter aspen timber, bears E. and W.
46.00	Leave aspen timber, bears E. and W.
51.45	Bottom of hollow, 400 ft. below ridge, course N.40°E.; (Known below as Little Dogy Canon). Ascend.
72.50	Top of ridge, 350 ft. above hollow, bears N.20°E. and S. 20°W.; descend.
80.00	Set a limestone, 16x8x4 ins., 11 ins. in the ground, for cor. of secs. 4, 5, 8, and 9, marked with 5 notches on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, sandy and gravelly; 3rd rate.
	Timber, aspen.
	Undergrowth, oak, sage, and deer brush.
	Good grass for grazing.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.

Subdivision of T.16 S R.19 E.-Continued

Chains	October 26, 1901: At the noon hour the sky is overcast and solar observations are impossible.
	N.89° 56' E., on a random line bet. secs. 4 and 9.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
80.04	Intersect N. and S. line, 5 lks. N. of the cor. of secs. 3, 4, 9, and 10. Thence I run S.89° 58' W., on a true line bet. secs. 4 and 9. Over mountainous land; through dense undergrowth; ascend.
40:02	Set a sandstone, 16x9x6 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable..
42.40	Top of ridge, 400 ft. above sec.cor., bears N.30° E. and S. 30° W.; descend .
62.20	Bottom of Little Dougy Canon, 400 ft. below ridge, course N.30° E.; ascend .
75.00	Top of ridge, 300 ft. above canon, bears N.20° E. and S. 20° W.; descend .
80.04	The cor. of secs. 4, 5, 8, and 9. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, oak, sage and service berry brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.04 chs.
	N.0° 03' W., on a true line bet. secs. 4 and 5. Over mountainous land; through dense undergrowth; descend .

Subdivision of T.16 S., R.19 E.-Continued.

Chains	
20.00	Bottom of hollow, 200 ft. below sec.cor., course N.60°W. Ascend .
40.00	Set a hard sandstone, 24x16x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W.of cor.Pits. impracticable.
47.50	Top of ridge, 300 ft. above hollow, bears N.W. and S.E.; Enter scattering timber, bears with ridge, .Descend .
66.00	Bottom of hollow, 200 ft. below ridge, course N.70°W.; ascend .
71.00	Top of ridge, 150 ft. above hollow, bears E. and W.; leave timber, bears with ridge, .Descend .
100.00	Bottom of hollow, 150 ft. below ridge, course N.80°W.; ascend .
115.00	Top of spur, 150 ft. above hollow, bears N.80°E. and S. 80°W.; descend through scattering timber.
130.30	Intersect the Third Standard Parallel South, 14.60 chs. East of the standard cor.of Tps.15 S., Rs.18 and 19 East, which is a sandstone, 12x10x10 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. Set a limestone, 15x9x5 ins., 10 ins. in the ground, for closing cor.of secs.4 and 5, marked C.C.on S., with 4 grooves on E.and 2 grooves on W.faces; from which A cedar, 5 ins.diam., bears S.65°E., 124 lks. .dist., marked . .T.16 S., R.19 E., S.4, B.T. A pinion pine, 18 ins.diam., bears S.26°W., 80 lks.dist., marked T.16 S., R.19 E., S.5, B.T. Land, mountainous. Soil, sandy and gravelly; 3rd rate. Timber, cedar and pinion pine. Undergrowth, oak, sage, and deer brush. Good grass for grazing. Mountainous land, or land covered with dense under- growth, 130.30 chs.

October 26,, 1901.

Subdivision of T.16 S., R.19 E.-Continued.

Chains	<p>October 28, 1901: At 8 h 3 m a.m., l.m.t., I set off $39^{\circ} 23' N.$, on the lat.arc; $12^{\circ} 59' S.$, on the decl.arc; and determine a true meridian, with the solar, at the cor.of secs. 5, 6, 31, and 32, on S.bdy.of Tp., heretofore described.</p> <p>Thence I run $N.0^{\circ} 03' W.$, bet.secs. 31 and 32.</p> <p>Over mountainous land; through dense undergrowth and scattering timber; ascend.</p> <p>Set a sandstone, $18 \times 10 \times 5$ ins., 12 ins.in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft.high, W.of cor.Pits impracticable.</p> <p>Top of ridge, 700 ft.above sec.cor., bears $N.60^{\circ} W.$ and $S.60^{\circ} E.$; descend.</p> <p>Bottom of hollow, 150 ft.below ridge, course $N.20^{\circ} E.$; ascend.</p> <p>Top of ridge, 200 ft.above hollow, bears $N.15^{\circ} E.$ and $S.15^{\circ} W.$; descend.</p> <p>Set a limestone, $15 \times 10 \times 5$ ins., 10 ins.in the ground, for cor.of secs. 29, 30, 31, and 32, marked with 1 notch on S.and 5 notches on E.edges; and raise a mound of stone, $\frac{3}{4}$ ft.base, $1\frac{1}{2}$ ft.high, W.of cor.Pits impracticable.</p> <p>Land, mountainous.</p> <p>Soil, sandy and gravelly; 3rd rate.</p> <p>Timber, cedar and pinion pine.</p> <p>Undergrowth, oak and sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.00 chs.</p> <p>$N.89^{\circ} 57' E.$, on a random line bet.secs. 29 and 32.</p> <p>Set temp.$\frac{1}{4}$ sec.cor.</p> <p>Intersect N.and S.line, 7 lks.N., of the cor.of secs.</p>
40.00	

Subdivision of T. 16 S., R. 19 E. -Continued.

Chains	28, 29, 32, and 33. Thence I run West, on a true line bet. secs. 29 and 32. Over mountainous land; through dense undergrowth; descend.
5.00	Bottom of hollow, 50 ft. below sec. cor., course N. 20° E.; ascend.
15.25	Top of ridge, 200 ft. above hollow, bears N. 20° E. and S. 20° W.; descend.
26.00	Bottom of hollow, 200 ft. below ridge, course N. 20° E.; as- cend.
32.00	Top of ridge, 200 ft. above hollow, bears N. 20° E. and S. 20° W.; descend.
40.00	Bottom of hollow, 100 ft. below ridge, course N. 20° E. Set a sandstone, 18x6x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone., 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
55.00	Top of ridge, 150 ft. above hollow, bears N. 20° E. and S. 20° W.; descend.
66.00	Bottom of hollow, 100 ft. below ridge, course N. 20° E.; ascend.
78.00	Top of ridge, 250 ft. above hollow, bears N. 20° E. and S. 20° W.; descend.
80.00	The cor. of secs. 29, 30, 31, and 32. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, sage and oak brush. Good grass for grazing. Mountainous land, or land covered with dense under- growth, 80.00 chs.
40.00	S. 89° 57' W.; on a random line bet. secs. 30 and 31. Set temp. $\frac{1}{4}$ sec. cor.
79.72	Intersect W. bdy. of Tp., at the cor. of secs. 25, 30, 31, and 36, heretofore described.

Subdivision of T. 16 S., R. 19 E. -Continued.

Chains	Thence I run N. $89^{\circ} 57' E.$, on a true line bet. secs. 30 and 31. Over mountainous land; through dense undergrowth; descend.
29.00	Bottom of hollow, 250 ft. below sec. cor., course N.W.; ascend.
39.72	Set a sandstone, 18x7x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
58.00	Top of ridge, 250 ft. above hollow, bears N. $15^{\circ} E.$ and S. $20^{\circ} W.$; descend.
71.50	Bottom of hollow, 250 ft. below ridge, course N. $20^{\circ} E.$; ascend.
79.72	The cor. of secs. 29, 30, 31, and 32. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.72 chs.
	October 28, 1901: At this cor. I set off $13^{\circ} 04' S.$, on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ} 23' N.$
	N. $0^{\circ} 03' W.$, bet. secs. 29 and 30. Over mountainous land; through dense undergrowth; descend.
40.00	Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
50.00	Bottom of hollow, 300 ft. below sec. cor., course N. $10^{\circ} E.$ Ascend.
80.00	Set a sandstone, 18x6x5 ins., 12 ins. in the ground, for cor. of secs. 19, 20, 29, and 30, marked with 2 notches on S. and 5

Subdivision of T. 16 S., R. 19 E.-Continued

Chains	notches on E.edges;and raise a mound of stone,2 ft. base, $\frac{1}{2}$ ft.high,N.of cor.Pits impracticable.
-	Land,mountainous.
-	Soil,sandy and gravelly;3rd rate.
No timber.	
-	Undergrowth,oak and sage brush.
-	Good grass for grazing.
-	Mountainous land,or land covered with dense under-growth,80.00 chs..
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-	East,on a random line betsecs.20 and 29.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
79.90	Intersect N.and S.line,at the cor.of secs.20,21,28, and 29.
-	Thence West,on a true line betsecs.20 and 29.
-	Over mountainous land;through dense undergrowth;des-cend .
13.50	Bottom of hollow,200 ft.below sec.cor.,course N. 5° E. Ascend .
39.95	Set a sandstone,18x7x6 ins.,12 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on N.face;and raise a mound of stone,2 ft.base, $\frac{1}{2}$ ft.high,N.of cor.Pits impractic-a-ble.
51.00	Top of ridge,350 ft.above hollow,bears N. 20° E.and S. 20° W.;descend .
75.00	Bottom of hollow,300 ft.below ridge,course N. 20° E.; ascend .
79.90	The cor.of secs.19,20,29, and 30. Land,mountainous.
-	Soil,sandy and gravelly;3rd rate.
No timber.	
-	Undergrowth,oak and sage brush.
-	Good grass for grazing.
-	Mountainous land,or land covered with dense under-growth,79.90 chs..

Subdivision of T.16 S., R.19 E., -Continued.

Chains	S. 89° 57' W., on a random line bet. secs. 19 and 30.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.96	Intersect W. bdy. of Tp., 7 lks. S. of the cor. of secs. 19, 24, 25, and 30, heretofore described.
	Thence I run
	East, on a true line bet. secs. 19 and 30.
	Over mountainous land; through dense undergrowth; descend.
4.00	Bottom of hollow, 20 ft. below sec. cor., course N. 10° W.
	Ascend.
29.20	Top of ridge, 230 ft. above hollow, bears N. 20° E. and S. 20° W.; descend.
34.50	Bottom of hollow, 50 ft. below ridge, course N. 15° E.;
	ascend.
39.96	Set a sandstone, 18x5x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
43.00	Top of ridge, 100 ft. above hollow, bears N. 20° E. and S. 20° W.; descend.
60.00	Bottom of hollow, 200 ft. below ridge, course N. 30° E.;
	ascend.
73.90	Top of ridge, 200 ft. above hollow, bears N. 10° E. and S. 10° W.; descend.
79.96	The cor. of secs. 19, 20, 29, and 30. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.96 chs.
	October 28, 1901.
	October 29, 1901: At 8 h 2 m a.m., l.m.t., I set off 39° 24' N., on the lat. arc; 13° 19' S., on the decl. arc; and de-

Subdivision of T. 16 S., R. 19 E.-Continued.

Chains	termine a true meridian, with the solar at the cor. of secs. 19, 20, 29, and 30. Thence I run N. 0° 03' W., bet. secs. 19 and 20. Over mountainous land; through dense undergrowth; ascend .
30.00	Top of ridge, 200 ft. above sec. cor., bears N. 15° E. and S. 15° W.; descend .
40.00	Set a sandstone, 18x7x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
42.00	Bottom of hollow, 100 ft. below ridge, course N. 20° E.; ascend .
80.00	Set a sandstone, 16x10x5 ins., 11 ins. in the ground, for cor. of secs. 17, 18, 19, and 20, marked with 3 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, sage and oak brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
40.00	East, on a random line bet. secs. 17 and 20. Set temp. $\frac{1}{4}$ sec. cor.
79.78	Intersect N. and S. line, 12 lks. N. of the cor. of secs. 16, 17, 20, and 21. Thence I run N. 89° 55' W., on a true line bet. secs. 17 and 20. Over mountainous land; through dense undergrowth; ascend .
26.10	Top of ridge, 190 ft. above sec. cor., bears N. 20° E. and

Subdivision of T.16 S., R.19 E.-Continued.

Chains	S.20° W.; descend .
39.89	Set a sandstone, 24x8x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft.high, N.of cor. Pits impracticable.
44.00	Bottom of hollow, 150 ft.below ridge, course N.; ascend.
47.50	Top of ridge, 70 ft.above hollow, bears N.and S.; descend .
62.80	Bottom of hollow, 200 ft.below ridge, course N.; ascend.
79.78	The cor.of secs.17,18,19, and 20. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land; or land covered with dense undergrowth, 79.78 chs..
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40.00	West, on a random line bet.secs.18 and 19. Set temp. $\frac{1}{4}$ sec.cor.
79.88	Intersect W.bdy.of Tp., at the cor.of secs.13,18,19, and 24, heretofore described. Thence I run East, on a true line bet.secs.18 and 19. Over mountainous land; through dense undergrowth; descend .
21.70	Bottom of hollow, 200 ft.below sec.cor., course N.40° W. Ascend .
39.88	Set a sandstone, 24x8x6 ins., 18 ins.in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft.high, N.of cor. Pits impracticable.
43.00	Top of ridge, 200 ft.above hollow, bears N.W. and S.E.; descend .
49.00	Bottom of hollow, 50 ft.below ridge, course N.W.; Moon Water Spring bears N.W.about 5.00 chs.dist. Ascend .

Subdivision of T.16 S., R.19 E.-Continued.

Chains

70.30 Top of ridge, 250 ft. above hollow, bears N.10°E. and S.10°W.; descend.

79.88 The cor. of secs. 17, 18, 19, and 20.

Land, mountainous.

Soil, sandy and gravelly; 3rd rate.

No timber.

Undergrowth, oak and sage brush.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth, 79.88 chs.

October 29, 1901: At this cor. I set off 13°24'S^o, on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°25'N.,

N.0°03'W., bet. secs. 17 and 18.

Over mountainous land; through dense undergrowth; descend along east slope of mountain.

40.00 Set a sandstone, 18x6x6 ins., 12 ins. in the ground, for sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

60.00 Bottom of hollow, 200 ft. below sec. cor., course N.60°E. Ascend. A corral bears East about 5.00 chs. dist.

80.00 Set a limestone, 20x16x14 ins., 15 ins. in the ground, for cor. of secs. 7, 8, 17, and 18, marked with 4 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, sandy and gravelly and rocky; 3rd and 4th rate.

No timber.

Undergrowth, oak and sage brush.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth, 80.00 chs.

Subdivision of T.16 S., R.19 E.-Continued.

Chains	S.89°55'E., on a random line bet. secs. 8 and 17.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
79.76	Intersect N. and S.line at the cor. of secs. 8, 9, 16 and 17.
	Thence I run
	N.89°55'W., on a true line bet. secs. 8 and 17.
	Over mountainous land through dense undergrowth, descend.
1.00	Bottom of hollow, 10 ft. below sec. cor., course N.E.
	Ascend.
20.00	Top of ridge, 200 ft. above sec.cor.bears N.5°E. and S.5°W.; descend.
39.88	Set a sandstone, 14x12x4 ins., 9 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
44.25	Bottom of hollow, 200 ft. below ridge, course N.; ascend.
57.00	Top of ridge, 200 ft. above hollow, bears N. and S.; descend.
67.00	Bottom of hollow, 100 ft. below ridge, course N.; ascend.
79.76	The cor. of secs. 7, 8, 17 and 18. Land, mountainous. Soil, sandy and gravelly, 3rd rate. No timber. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.76 chs.
40.00	West, on a random line bet. secs. 7 and 8. Set temp. $\frac{1}{2}$ sec. cor.
79.92	Intersect N. and S.line, 7 lks. N.of the cor. of secs. 7, 12, 13 and 18, on W.bdy. of TP. heretofore described Thence I run

Subdivision of T.16 S., R. 19 E., Continued.

- Chains N. 89° 57' E., on a true line bet. secs., 7 and 18.
Over mountainous land; through dense undergrowth; ascend.
7.50 Top of ridge, 50 ft. above sec.cor., bears N. 10° W. and S.
10° E.; descend.
38.92 Set a sandstone, 18x10x4 ins., 12 ins. in the ground, for
sec.cor., marked $\frac{1}{2}$ on N. face; and raise a mound of
stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impractic-
able...
45.30 Bottom of hollow, 200 ft. below ridge, course N. 20° W.; as-
cend.
65.75 Top of ridge, 250 ft. above hollow, bears N. 10° W. and S.
10° E.; descend.
78.92 The cor. of secs. 7, 8, 17, and 18.,
Land, mountainous.
Soil, sandy and gravelly; 3rd rate.
No timber.
Undergrowth, oak and sage brush.
Good grass for grazing.
Mountainous land, or land covered with dense under-
growth, 78.92 chs.

October 29, 1901.

October 30, 1901: At 8 h 0 m a.m., l.m.t., I set off 30°
26' N., on the lat. arc; 13° 39' S., on the decl. arc; and de-
termine a true meridian, with the solar at the cor. of
secs. 7, 8, 17, and 18.

Thence I run

N. 0° 03' W., bet. secs. 7 and 8.

Over mountainous land; through dense undergrowth; an-
descend.

28.00 Top of ridge, 250 ft. above sec.cor., bears N. 80° E. and
S. 80° E.; descend.

40.00 Bottom of hollow, 200 ft. below ridge, course N. 80° E.
Set a sandstone, 14x10x4 ins., 9 ins. in the ground, for
sec.cor., marked $\frac{1}{2}$ on N. face; and raise a mound of

Subdivision of T.16 S., R.19 E. -Continued.

Chains	stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
60.00	Top of ridge, 200 ft. above hollow, bears N. 30° E. and S.W.; descend.
80.00	Set a limestone, 16x14x4 ins., 11 ins. in the ground, for cor. of secs. 5, 6, 7, and 8, marked with 5 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
	Land, mountainous.
	Soil, sandy and gravelly; 3rd rate.
	No timber.
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
<hr/>	
	S. $89^{\circ} 55' E.$, on a random line bet. secs. 5 and 8.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.94	Intersect N. and S. line, 7 lks. S. of the cor. of secs. 4, 5, 8, and 9.
	Thence I run
	N. $89^{\circ} 58' W.$, on a true line bet. secs. 5 and 8.
	Over mountainous land; through dense undergrowth; descend.
19.00	Bottom of hollow, 300 ft. below sec. cor., course N. 20° E; ascend.
23.50	Top of ridge, 250 ft. above hollow, bears N. and S.; descend.
39.97	Set a limestone, 20x11x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
40.75	Bottom of hollow, 400 ft. below ridge, course N.; creek in bottom, 2 lks. wide, 2 ins. deep. Ascend.
67.00	Top of ridge, 400 ft. above hollow, bears N.E. and S.W.;

Subdivision of T. 16 S., R. 19 E.-Continued.

Chains	descend .
73.00	Bottom of hollow, 200 ft. below ridge, course N.25°E.; ascend .
79.94	The cor.of secs.5,6,7, and 8. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land or land covered with dense undergrowth, 79.94 chs.
	S.89° 57'W., on a random line bet.secs.6 and 7.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
80.02	Intersect W.bdy. of Tp., at the cor.of secs.1,6,7, and 12, heretofore described. Thence I run N.89° 57'E., on a true line bet.secs.6 and 7. Over mountainous land; through dense undergrowth; descend .
30.00	Bottom of hollow, 200 ft. below sec.cor., course N.W.; ascend .
40.02	Set a sandstone, 16x8x4 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor.Pits impracticable.
67.00	Top of ridge, 300 ft. above hollow, bears N.10°E. and S.10°W.; descend :
80.02	The cor.of secs.5,6,7, and 8. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, sage and oak brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.02 chs.

Subdivision of T.16 S., R.19 E. -Continued.

Chains	October 30, 1901: At the noon hour the sky is overcast and solar observations are impossible.
	N. 0° 03' W., on a true line bet. secs. 5 and 6. Over mountainous land; through dense undergrowth; ascend.
40.00	Top of ridge, 200 ft. above sec. cor., bears N. 60° E. and S. 60° W. Set a limestone, 30x12x5 ins., 22 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Descend.
77.00	Bottom of hollow, 250 ft. below ridge, course N. 70° E.; ascend.
100.90	Top of ridge, 200 ft. above hollow, bears N. 80° E. and S. 80° W.; descend.
130.15	Intersect the Third Standard Parallel South, 14.28 chs. East of the standard cor. of secs. 35 and 36 on S. bdy. of T. 15 S., R. 18 E., which is a sandstone, 6x10x4 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. Set a limestone, 28x15x4 ins., 21 ins. in the ground, for closing cor. of secs. 5 and 6; marked C.C. on S., with 5 grooves on E. and 1 groove on W. faces; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor. Pits impracticable. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 130.15 chs.

October 30, 1901.

Subdivision of T.16 S., R.19 E.-Concluded.

General description

This township is mostly mountainous land, a part of which is rolling and a part of which is very rough. In the southeast corner of the township there is a rolling mesa covering about three sections. The soil on the mesas and in the bottoms of the canons is generally sandy and gravelly loam; 2nd rate; and the soil on the mountain ridges is gravelly and rocky; 3rd and 4th rate.

Nearly the entire township is covered with dense undergrowth, of sage, service berry, deer brush, and mahogany.

The entire township is covered with an abundant growth of rich and nutritious grasses, which is kept well fed down by the many cattle, horses and sheep that graze thereon.

There is some scrub cedar and pinion pine and a little aspen growing in the township.

The township is watered sufficiently for grazing purposes by springs which rise in the township.

There are no settlers in the township; except some Indians who make their summer camp at Moon Water Spring in sec. 18.

The township is mainly valuable for grazing purposes.

There is no mineral in the township.


Andrew J. Stewart Jr.
U.S. Deputy Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Andrew J. Stewart Jr., United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the Salt Lake Base and meridian of J.19 S., R.20 E., J.18 S., R.20 E., J.18 S., R.19 E., J.17 S., R.20 E., J.17 S., R.19 E., J.16 S., R.20 E., and J.16 S., R.19 E. following the respective capacities in which they acted:

William Matson, *Chairman.*
Harry M. Cluff, *Chairman.*
William Andrews, *Moundman.*
Arthur Wilde, *Moundman.*
Onorio Marriotti, *Axman.*
Victor D. Cram, *Axman.*
Victor D. Cram, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Andrew J. Stewart Jr., United States Deputy Surveyor, in surveying all those parts or portions of the sub-divisions of J.19 S., R.20 E., J.18 S., R.20 E., J.18 S., R.19 E., J.17 S., R.20 E., J.17 S., R.19 E., J.16 S., R.20 E., and J.16 S., R.19 E. of the Salt Lake Base and meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Utah.

William Matson, *Chairman.*
Harry M. Cluff, *Chairman.*
William Andrews, *Moundman.*
Arthur Wilde, *Moundman.*
Onorio Marriotti, *Axman.*
Victor D. Cram, *Axman.*
Victor D. Cram, *Flagman.*

Subscribed and sworn to before me this 20th day of November, 1881 }



Stephen F. Thomas
Notary Public
My commission expires
March 26 - 1905.

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Andrew J. Stewart Jr., United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Edward H. Anderson, United States Surveyor General for Utah, bearing date of the 12 day of April 1901, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Utah, the Manual of Surveying Instructions, and the lays of the United States, surveyed all those parts or portions of the subdivisions of T. 19 S.R. 20 E., T. 18 S.R. 20 E., T. 18 S.R. 19 E., T. 17 S.R. 20 E., T. 17 S.R. 19 E., T. 16 S.R. 20 E., and T. 16 S.R. 19 E.

Base and meridian, in the State of Utah, which are represented in the in books D. C. L. N. 945 foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Utah, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Andrew J. Stewart Jr.

United States Deputy Surveyor.

Subscribed by said Andrew J. Stewart Jr., and sworn to before me }
this 12 day of April 1901, 189 }



Edward H. Anderson
U. S. Surveyor General
for Utah

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL

Salt Lake City, Utah, March 19 1903, 189
The foregoing field notes of the survey of the subdivisions of
Township 16 South Range 19 East of the Salt Lake
Base Meridian, Utah

executed by Andrew J. Stewart Jr.
under his contract No. 110, dated April 12, 1901, 189, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the
surveys they describe, are hereby approved.

Edward H. Anderson
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General.